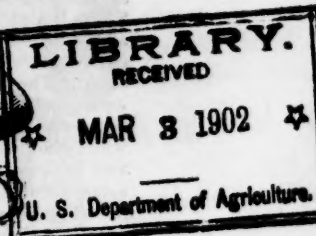


MASSACHUSETTS PLOUGHMAN



JOURNAL OF

VOL. LXI. - NO. 23

BOSTON, MASS., SATURDAY, MARCH 1 1902

WHOLE NO. 3136

MASSACHUSETTS PLOUGHMAN
PUBLISHED WEEKLY AT
NO. 3 STATE STREET,
BOSTON, MASS.

TERMS:
\$2.00 per annum, in advance. \$2.50 if not paid in advance. Single copies 5 cents.
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AGRICULTURAL.
Power of the Farm.
There are some small farms or gardens where man power can be had cheaper than any other, because the amount of work to be done is not sufficient to warrant the expense of maintaining any other, but on a larger place it is the most expensive, because the results cannot be as much as can be accomplished in the same time by other power, and man power is only cheap because it can be constantly employed, and even must be kept up when other power is also used.

Next to this comes the horse power, and this alone, or with ox power, was the reliance of the farmer in days when we were young. The horse, like the man, was almost in constant use, and could be adapted to many purposes. He had to be fed whether used or not, and efforts were made to utilize his services in other ways than by straight draft. The circular horse power as exemplified in the turning of the cider mill was followed by the tread-mill, and that modified by the fly wheel, which helped to retain power when once in motion.

These methods both served useful purposes in the threshing machine, in sawing wood, cutting fodder and roots, pumping, churning, and many other ways, while there were a few so fortunately situated that they could utilize the power of the water that ran by or through their land. The wind mill was also much in favor, and it proved an inexpensive power when one had work that could be done as well at one time as another, and could wait for the wind to blow. To grind grain, pump water, or for other work of which enough may be done in one day to last through a week of calm weather, nothing will do the work as cheaply as the windmill, but if a certain labor needs to be done every day, and especially at a certain time of day, the wind is too fickle to be depended upon. The windmill has also a disadvantage in the necessity of always requiring the work to be brought to it, instead of being able to go to the locality where the work was to be done.

The portable steam engine seems to answer all requirements better than any other power. It can do all the work that any of the others we have named, excepting that of the horse on the road. It needs feeding only when in use, and proper sheltering. It is as ready to saw wood, cut fodder for silo, churn, or do a day at threshing grain, as any other duty, and works ten to fourteen hours a day as well as eight hours, if properly cared for, without going on a strike. For all but the larger farms a five or six-horse power engine is usually sufficient, though one purchasing will do better to get one a little larger than he thinks he needs than to begin with too small a size. For cutting ensilage and elevating it thirty or forty feet to the top of the silo, we think the manufacturers of the cutters and elevators usually advise a ten-horse power boiler and engine. Anything of a larger size is constantly moved from one place to another, and one of the advantages of the portable engine should be its ability to do the work upon more than one small farm, or attached to a larger ranch. It may thus have several owners or co-operative shareholders, and the one who purchases it can receive income by renting it to neighbors.

The many now who advocate the gasoline engine and claim that one non-normally can get more power with it than the steam engine. Of this we know but little, but most who have them are well satisfied. They are easily handled, and the expense for fuel is not great, yet we have not been able to believe that they are, or the same makes were a little more apt to set on fire and require more frequent repairs than the steam engine. Then the fuel for the steam engine can often be had on the farm almost without expense, especially where wood is abundant.

manufacturer guarantees it to a certain extent. When second handed no one will do that. We should want a very intimate knowledge of one, both how it had been used, and how cared for when not in use, to induce us to get one at a bargain counter, or an auction sale. The cheaper the bargain seemed to be, the more we should be afraid of it. Like some of the horses that are "sold for no fault," faults are apt to be more than one.

Some Sheep Sense.
The more experience one has with sheep the more convinced he becomes that success depends to a large extent upon what might be called good "sheep sense," as distinguished from horse sense so commonly used. It is impossible to make profits out of sheep

what is going on in their particular industry. T. M. MANDRAKE.
Minnesota.

Winter Vegetables.
There are some vegetables which are sold all through the winter in our large cities which farmers would do well to consider raising, even if they are located some distance from markets. These vegetables are unperishable, and they can be stored in pits or cellars until actually needed for shipment. They are nearly all hardy crops, and are shipped in bulk. There is hardly a month in winter when they are not in demand, and practically having little competition, they bring remunerative prices. First among these are winter cabbages. These are bringing today in the cities from

Soil Sterilization.
Prof. George E. Stone of the Hatch Experiment Station, Amherst, Mass., recently delivered a lecture before the Massachusetts Horticultural Society on "The Methods and Results of Soil Sterilization." He said, in part:
In general the treatment of diseases in greenhouses demands other methods than those which out-of-door plants are subject to. In the greenhouse the gardener has the conditions largely under his control, whereas he can modify only to a limited extent the conditions out of doors. Many of the troubles which indoor plants suffer with are directly traceable to the conditions which they have been subject to, and the gardener must be wholly responsible for them. There are some disastrous dis-

accomplish is to destroy the obnoxious pests which cause damage to the crop. A uniform temperature of 180° F. maintained for a short time would accomplish this, but in practice it is far better to exceed this temperature in order to be on the safe side. During the past year quite remarkable strides have been made in the practice of sterilizing soils. On account of the extensive use of the sterilization method upon a large plan by the most efficient and practical market gardeners, the process has been made very much cheaper and quickened to a considerable degree. There have been numerous methods and appliances devised that are great improvements over old ones. In the past year the amount of soil sterilized can be intelligently estimated in acres rather than in square feet. At the present time, whole ranges of greenhouses are being

year; but on the basis of a five-year treatment, which is in our estimation all that is required, the investment is nearly five times as good. The increased value of the soil and the possibility of having less weeds and aphids should also be taken into consideration in estimating the benefits derived from this method of treatment.

The methods employed for heating the soil have been either by the use of hot water or steam, with considerable variation in the mode of applying the latter. The hot-water method requires the treatment of the soil previous to the putting in of each crop, as only a few inches of surface soil are sufficiently heated by this method to kill the mycelium of the drop.

The heating by steam is now done largely by perforated pipes, and in some cases use is made of two-inch porous tile, although this method is not so practicable. The various contrivances made out of perforated pipe, varying from one to three inches in diameter, and usually placed from seven to twelve inches apart, are made up into frames from ten to twenty feet or more in length and into any width desired. The size and number of the perforations vary much in different appliances.

The methods generally adopted by lettuce growers in heating their soil is to place the sterilizer on the surface of the bed. If the bed is twenty feet wide then it would be most convenient to have the sterilizer ten feet wide and twenty or thirty feet long. This is placed midway in the bed, and the soil to the depth of one foot or more is dug up on either side and thrown on top of the sterilizer. The steam is then turned on and the soil heated. After sufficient steaming has taken place the pipes can be pulled out and made ready for the next treatment. The soil previously treated is covered up with old canvas and allowed to stand some hours, after which the top portion is shoveled back to where it was taken from. Not only is the one foot or fifteen inches of top-soil heated, but the soil underneath the apparatus is equally well sterilized, providing too much haste is not made in removing the treated soil.

From reliable estimates which we have been able to obtain from practical lettuce growers and others who have heated their soil, the cost, including coal, labor, etc., but not the cost of tile or apparatus used, is as follows:

In a house 225 feet long by twenty feet wide, one-third of which was treated at a time by steam passing through two-inch tile placed eight inches below the surface and one foot apart, the cost was at the rate of \$16 per 1000 cubic feet. The estimated cost of removing the soil from a similar house to a depth of one foot, and placing in new soil without carting the same, was at the rate of \$37.50 per 1000 cubic feet.

Another house forty by five hundred feet was treated by steam passed through one-inch iron pipe with series of perforations six inches apart and three-sixteenths of an inch in diameter. The estimated cost for sterilizing one thousand cubic feet, based upon the treatment of the whole house, was \$8.33.

In another instance it took three days to treat a house three hundred feet by thirty-six, and from the estimated cost of labor, fuel, etc., the treatment was made at a rate of \$5.92 per one thousand cubic feet. We observed one test with a sterilizer in which four hundred cubic feet of soil were heated at the rate of \$2 per one thousand cubic feet.

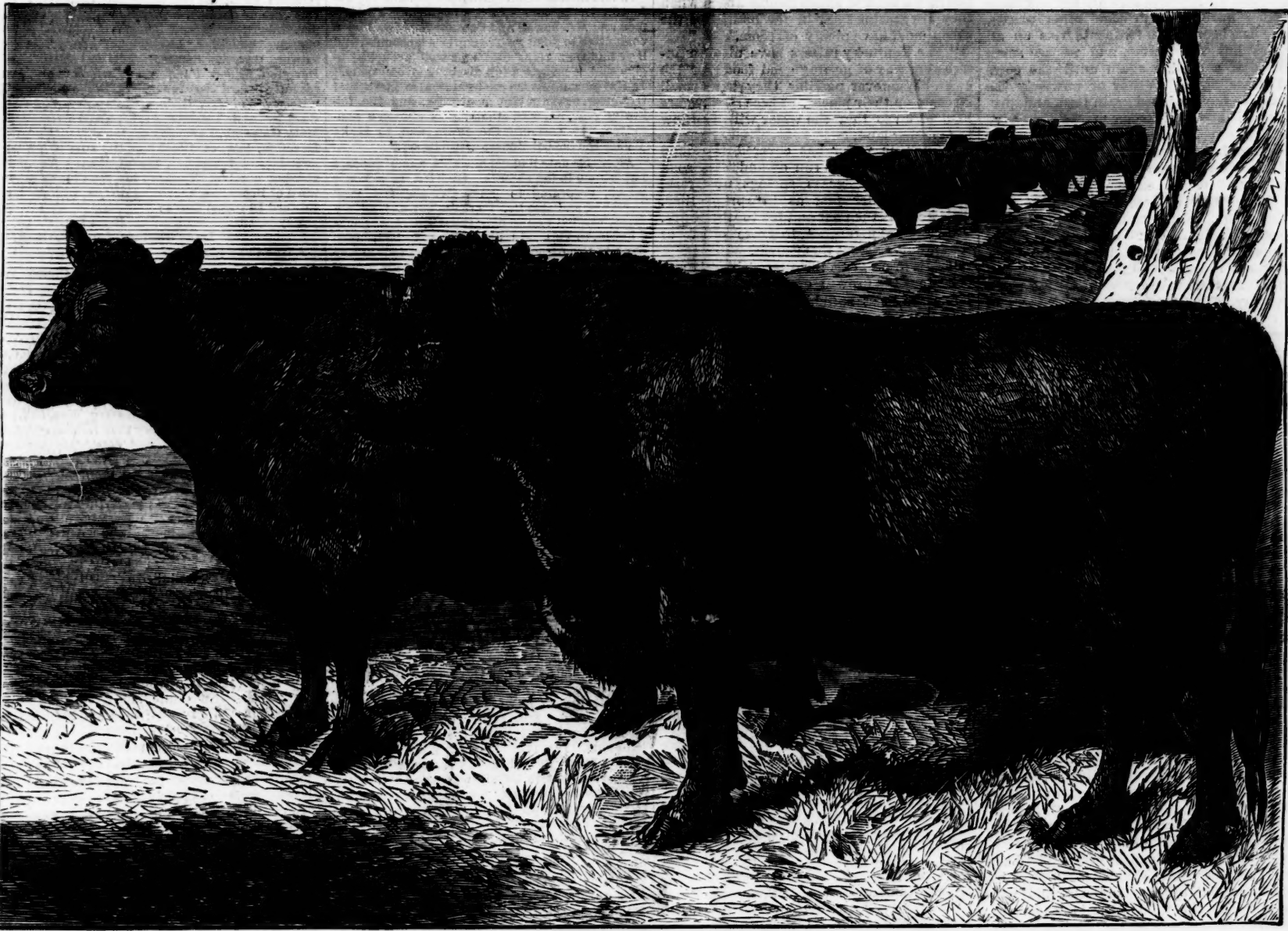
Mr. W. W. Rawson claims that it cost him \$30 to sterilize a house three hundred feet by forty, which would be at the rate of about \$4.16 per one thousand cubic feet. This is undoubtedly a very fair estimate of what it costs to sterilize soil when undertaken on a large plan. When soil can be sterilized at \$2 per one thousand cubic feet, or even \$5, there is no longer any question concerning the practical application of this method in greenhouses for the extermination of some of the worst enemies which interfere with the production of healthy and profitable crops. Even where the cumbersome tile method is employed, the cost of sterilization is less than one-half what it costs to remove the old soil from a house and supply it with new.

Some market gardeners have practiced sterilization for three years, not wholly for the sole purpose of ridding the soil of certain disease-producing organisms, as that can be accomplished by one treatment, when properly done, but largely for the purpose of increasing their crops. We have made many experiments with various crops wherein the effect of sterilization on the growth of plants was compared with the growth of the same species of plants in precisely similar earth not sterilized. The effect of sterilization is quite marked in such experiments.

One of our largest lettuce growers, who has observed the effect of sterilization on his own crops for three or four years, declares that he would rather have one inch of sterilized soil on his beds than any fertilizer which he has ever used.

A gain of thirty-three per cent. in the growth of the crop is in itself worthy of consideration, so much so, in fact, that, as already stated, many gardeners practice sterilization for the production of larger crops. This means that a crop of lettuce when four weeks old is equal to one six weeks old as ordinarily grown, at least such are the results which we have obtained in our experiments, and lettuce growers have related similar experiences.

There are still opportunities for practical gardeners to improve the appliances for sterilization which will render the operation more efficient and reduce its cost.



NORFOLK POLLED CATTLE.

unless one possesses or acquires this sense, such a little thing will sometimes upset all the good work that a man can do. Here is a neighbor who had a fine herd of sheep which he carefully bred and fed, and seemed to do everything for them; but a good deal of his pasture land was low and wet, and the sheep spent about half or three-quarters of their time with wet feet. They seemed to prefer the low, wet lands, but that was because there was better vegetation there, and not because they liked wet feet. Well, about half the herd became sick and after a disastrous season the owner woke up to the necessity of fencing off his low, wet lands from the sheep pasture.

Rape for sheep is much like clover for the pigs or potash for peach trees. One might just as well give up sheep feeding if he will not try rape for their food. Sheep and rape must go together, and they do on most farms where the owner has good "sheep sense." Yet it is not necessary to go into many counties in almost any State to find sheep raised without the owner ever having once thought of sowing rape for them. It is not at all strange that so many claim there is no money in sheep raising or farming. Considering the ignorance in some quarters of all changes and improvements that have been going on in this country in the past quarter of a century, it is not at all surprising that failures are common. Do men who know nothing about modern farming ever read? Or are they so set in their ways that they refuse to adopt any methods except those which their fathers taught them?

\$8 to \$15 per ton. They are sold thus in bulk because they are shipped so at a lower rate of freight. The great difference in the price is due to the difference in the kind. The demand now is for Danish seed cabbages, and consumers will pay \$12 and \$15 per ton for these when native seed sell at \$8 and \$10. It seems strange under the circumstances that any one should raise the native seed cabbages. The only excuse is that the seed of the latter is a few cents per ounce less.

Winter turnips is the second important winter vegetable which some farmers store for the midwinter markets. The Russia variety of turnip is almost exclusively in demand, and most of them come to our large cities from Canada. Canadian farmers can raise these turnips and ship them to New York at a profit. They are raised on an enormous scale, and stored until winter, and then shipped down by boat load or car lot. There is a good field for American farmers to enter. Do not sell all your cabbages in the fall, nor all your turnips, especially if they are of the winter-keeping varieties.

Carrots and beets are also good winter crops. They can be raised on a large scale and stored in enormous cellars or pits until prices are satisfactory. Farmers who raise potatoes and store them away for winter markets often never think of these other winter vegetables. The peculiar thing about the whole matter is that the latter are often more profitably raised than potatoes. If one made a specialty of cabbages, turnips, carrots and beets for winter markets he would almost inevitably make a good living. The two chief essentials would be plenty of cheap land and commodious winter storage quarters. Then with a little intelligence in raising and marketing them he would find his reward. As freight would out a considerable figure in the work it would be necessary to study that carefully. Any way of reducing the cost of transportation would mean a good deal of saving. It might be done by chartering whole cars for shipment, or by sending them to the city by boat. The success of the business would depend a good deal on its wholesale character. One would have to raise enough to make it worth while.

Missouri.
A. T. PLUMB.
Lincoln's Birthday is not printed so large upon the calendar as some others, but it occupies an important place in the memory of men. There is a very vital quality in that kind of a birthday.

cases, however, which greenhouse plants are affected with that cannot be controlled by any amount of skill in handling the crop without recourse is taken to radical preventive measures. Such is the case where the gardener has to contend with genuine parasites or with pathogenic organisms which will attack a healthy plant just as quickly and disastrously as a weak one. Such diseases are produced by the fungus *Sclerotinia libertiana* Fekl., which causes the drop in lettuce and the timber rot in cucumbers, the Rhizoctonia, which affects lettuce and many other plants, and the Heterodera radicicola, Mull., a nematode worm, that is known to affect 180 or more species of plants, and which is especially disastrous wherever it occurs in abundance to greenhouse cucumbers, tomatoes, muskmelons, violets, roses, cyclamens, etc. It is for the control of these disastrous organisms which the sterilization method is especially adapted, and which all other methods of treatment, except for nematode worms, fail. It is also applicable to the destruction of weed seeds, and the red spider and aphids in the soil are killed.

The application of chemical substances to the soil for the control of pathogenic organisms is not practicable except in some exceptional cases; neither is the fumigation method of much value, as gases are limited in their power of penetrating the soils. In some cases freezing or drying the soil is effective, but it is not easy to freeze soil in the greenhouse without removing it, and the method is too expensive, for at the present time it is far cheaper to sterilize soil than to renew it. The sterilization method is the most effective and absolute method that can be applied in the treatment of pathogenic organisms. Where the pest is confined to the soil and does not disseminate by spores through the air it can be completely and absolutely eliminated.

The treatment of soil by heat, or sterilization, as it is called, has been carried on at the Hatch Experiment Station, Amherst, for some years, in connection with troublesome organisms which thrive in the soil and prevent the production of healthy crops. It should be borne in mind, however, that when we speak of sterilization of the soil we do not mean absolute sterilization, but what we actually accomplish in a sort of Pasteurization or partial sterilization. In order to obtain absolute sterilization and maintain those conditions, we should have to make use of the methods employed by bacteriologists. Absolute sterilization we do not desire, and all that is necessary to

treated and the method has been employed out of doors to some extent.

The method of treating the soil by steam to the distance of a foot or more in depth has always appeared to us as the best one to be employed, and since the cost of such treatment has been greatly reduced of late there appears to be no longer any reason why it cannot be extensively employed. The practice of applying one or two inches of treated soil to the top of the bed, while giving good results, has its drawbacks, because the process in order to be of any value has to be repeated every time a crop is planted. The cost of treating one foot or more of soil in badly infested houses proves an excellent financial investment; for example, some houses have had the drop in them to such an extent that fifty per cent. of the plants would succumb, and in some cases nearly the whole crop has been destroyed. In our own experiments, however, which was purposely contaminated a few years ago, we have experienced a loss in some cases equal to about ninety-nine per cent. In a house containing four thousand dozen plants of fifty cents per dozen, the value of the crop would be \$2000, or at twenty-five cents per dozen \$1000. The loss of fifty per cent. would reduce the value of the crop to \$1000 or \$500 respectively. Such a loss is the more provoking inasmuch as the maximum amount of drop occurs about the time the plants are mature, and all the labor bestowed on the crop in transplanting, care given to the same, amount of heat utilized, and the valuable space which they have taken up is all for nothing. A house of this description was sterilized during the past winter at a cost of \$100 and in examining this crop (which was one of the most perfect I have ever seen) there was only one case of disease in the whole house. There appears to be no reason why, if a house is once treated in a manner as thoroughly as this house was, another treatment would be necessary for some years, provided care is taken to prevent contamination from refuse material which contains the drop fungus. Even allowing a few contaminating areas to exist in the soil as a result of imperfect treatment, it will probably be five years before the loss would again reach that amount where it would be necessary to treat the soil. It requires no argument to show that the expense of \$100 for treatment in a house that would be worth \$2000 at fifty cents per dozen or even \$1000 at twenty-five cents per dozen is a good investment, even if the treatment has to be repeated each

Parties who think that they have animals which Mr. T. W. Rawson would have a burning desire to own if they could only be brought to his attention, should carefully read his article in this week's BREEDER. It may save them some postage stamps and Mr. Rawson some annoyance.

Agricultural.

Dairy Notes.

At the Dairymen's Convention in Hartford, Ct., last week, Mr. George P. Powell told them something about the dairy farm at Briardell Manor, of which he is director. There is also a school of horticulture and agriculture of which he has charge, but the dairy features were what he had most to say about. They have a herd of about 1100 Jersey cattle, old and young. It is the practice there to breed the heifers to come in when about three years old instead of two, and he gave records of the performance of some of these to prove the correctness of that practice. They were at that age so well developed that it is not easy to distinguish them from the older cows. Only 3 per cent. of the herd had failed to breed. Only 29 had died during the past year, or 2 1/2 per cent., and those from old age, accidents, or other causes which were not due to any lack of constitutional vigor in the herd. The milk from the entire herd is maintained at a standard of 14 per cent. solids, with never less than 5 per cent. of butter fat, and often up to 6 per cent. The bacteria in it is kept down to 1000 per centimeter, while the medical limit is 30,000. This speaks well for the cleanliness of the product, and of the process of handling it. Hon. George W. Horton of Brewster, N. Y., thought the dairy inspectors, instead of examining the products of the dairy, should go to the farm and examine the men in charge, to see if they were fit to run a dairy farm. Of the exhibits of creamery butter, one scored 98 per cent., two others over 97 per cent. and six others 90 per cent. or more. Of that made by private dairies 3 scored over 96 per cent. and 16 from 91 to 96 per cent., which is a very good showing for a State which has not an especial reputation for dairying, as has Vermont.

Dairy Commissioner John H. Noble of Connecticut has made his report to the governor for the year ending Sept. 30, 1901. He says that for the year ending June 30 the amount of oleomargarine produced in Illinois was 46,248,416 pounds. Kansas made 17,385,738 pounds and Ohio 16,443,973 pounds, and smaller amounts in other States brought the total up to 104,943,856 pounds. The total produced in 1897 was but 21,543,537 pounds. For the year ending June 30, 1901, Connecticut produced 10,786,302 pounds, and 134,255 pounds were brought from other States. A large proportion was brought in for private individuals to use in their families, and another large part was used by private corporations over which the State has no control, while county and State institutions use a considerable quantity, claiming that it is better than any butter that can be bought at anything like the price paid for the oleo. There are seven licensed dealers in the State who sell it uncolored according to law.

The increase in milk production has been large, going from 54,413,822 gallons in 1889 to 71,993,892 gallons in 1899, and the product per cow has increased from 425 1/2 gallons to over 569 gallons. This indicates better cows and better feed. Many creameries near the cities have given up business, as farmers find the demand for milk there gives them a better price than creameries will pay. The eastern part of the State is sending milk to Boston and Providence, and many dairymen get a better price from the oleomargarine factories in Providence than they could at any other place. The western part of the State sends much to New York. There has been a marked improvement in the methods of handling milk within the past few years throughout the State. "Greater care is taken, more cleanliness observed, cows and stables are in better condition, and stables are provided with better light and better sanitary surroundings."

There have been complaints during the hot weather that milk shipped out of the State was kept from soured by the use of preservatives or antiseptics, those most commonly used being borax, boracic acid and formaldehyde. The creameries in dairy sections remote from the cities, which are the largest part of the State, have been doing a good business, and are, as they have been for years back, of great benefit to the farmers of the State.

At the Dairymen's Convention at Woodstock, Ontario, it was reported that the exports of cheese this season were estimated to have shown a decrease of about 150,000 boxes, but as the exports of butter from Montreal increased 154,330 boxes, and as the milk that makes one pound of butter would have made 24 pounds of cheese, the make of Canadian dairy products was actually larger than ever before. Holding back cheese too long before shipment has been an injury to the trade, when it is not kept cool enough. Much of it is cured at too high a temperature. When cured at 70° there was much more shrinkage than when cured at 60°. Of lots put in cold storage at 40°, one as soon as made and others at intervals of one, two and three weeks after taking from the curing-room, the lots scored 92.1, 89.8, 84.8 and 80, that placed in immediately proving the best, and the longer it was kept out the greater the deterioration. One of the instructors had made 127 visits to factories in ten counties, and had met patrons on seven cows and given instructions on feeding cows and care of milk. When milk is paid for according to the quality, as shown by the butter fat test, the patrons of the factories and creameries soon get to taking better care of their milk in cooling, airing and stirring, in order to get the higher test, and there is not so much taking out of the pitcher of cream for porridge, tea, strawberries, etc., as there was when all milk was classed alike.

Mr. J. A. Couture, representative of the breeders of the French Canadian cattle at the Pan-American Exposition, claims that breed to have made a better showing than any other in several respects. First, they did not have the carefully selected cows that represented most of the other breeds. They selected fifteen cows in February, but when the time came to start them, eleven were out of condition from one cause or another, and they had to fill the places with others that had been given no previous preparation. As this was done on forty-eight hours notice, it was necessary to take some that calved long ago and already served for next calf, and some in poor condition. One served April 8 only gave about half what she was capable of during the last three months of the competition. Thus handicapped the Canadian made the largest percentage of net profits from sale of butter at twenty-five cents a pound, producing

Make Cows Breed Hood Farm Breeding Powder does it. Write for circulars telling how and why. Best remedy for failure to breed, failure to clean, irregularity in coming in season. By mail, \$1.15. Four times larger size to any railroad express, \$3.25. C. L. HOOD & CO., Lowell, Mass.

\$256.32 worth of butter for \$113.00 worth of food. They also showed the largest percentage of profits on value of solids in milk and increase of weight, \$191.40, or 180 1/2 per cent. There were others that showed larger profits, but all but one breed consumed much more in food value. The Canadians produced almost the same during the last four weeks of the six months as during the first four weeks, while the others shrank from 11 to 36 per cent. The Canadians showed \$26.10 profit in first four weeks and \$25.50 in last four weeks. The average cost per hundred pounds of butter for Canadians was \$9.08, the highest cost \$10.06, and lowest \$9.02. This with one cow heavy with calf. One of the claims made for this breed is that they are almost continuous milkers. The average cost per hundred pounds of butter on other breeds, and difference between highest and lowest cost on each, was: Ayrshire, \$10.44 average, difference \$3.46; Guernsey, average \$10.53, difference \$7.93; Jersey, average \$10.64, difference \$1.01; Polled Jersey, average \$10.69, difference \$0.90; Red Polled or Suffolk, average \$11.03, difference \$3.13; Holstein, average \$12.09, difference \$2.05; Shorthorn, average \$12.18, difference \$3.89; Swiss, average \$12.09, difference \$2.05; Dutch Belted, average \$13.64, difference \$9.94. This shows the capability of the Canadian to produce butter at practically the same cost all the year, and Mr. Couture thinks a nine months or year's test would place the Canadians largely ahead, although the Jerseys showed a little less difference between highest and lowest cost of butter per hundred pounds than the Canadian. Of the eleven breeds tested, and 50 cows, 3 Guernseys, 3 Canadian, 2 Jerseys, 2 Polled Jerseys and 1 Red Polled took the first place in profit received above cost of food. In 26 weeks, when the percentage of profit above cost of food was considered, the Canadians were first nine times, including the last three weeks, and second three times.

Butter Market.

The supply of fine fresh creamery is very light, and while prices here are not increased as they have been in some other places, there has been one to two cents rise on all grades but the lowest, and we see small chance of a decline again until the cows eat grass again. Wisely or unwisely the dairymen have reduced grain feed, and production is less, while some marks that have usually graded as extra now do not go higher than first, but they have to share in the better prices. The best creamery holds up to 29 cents, but that is an extreme price, and most of the northern and eastern ones at 27 to 28 or 29 cents. Northern firsts reach 26 to 27, Western firsts 25 to 27 cents, best marks Eastern the same, with fair to good 20 to 25 cents, and seconds 20 to 23 cents. Boxes and prints reached 20 to 23 cents for extra creamery, 25 to 26 cents for extra dairy, and fair to good 18 to 22 cents, with good demand for best grades. Dairy in tubs in getting more attention, and Vermont extra sells at 25 cents. New York at 24 cents, firsts at 22 to 23 cents, and seconds 18 to 20 cents. Records below show movement of butter in storage. June creamery sold freely at 23 to 24 cents and some at 24 cents, fair to good at 19 to 22 cents. A good demand for renovated at 22 to 23 cents, some fresh lots at 24 cents. Best imitation creamery is held at 17 cents, and firsts at 14 to 16 cents. Ladies dull at 13 to 15 cents. The jobbing rates one to two cents higher than these prices.

The receipts of butter at Boston for the week ending Feb. 15 were 10,775 tubs and 24,211 boxes, a total weight of 600,736 pounds, including 43,907 pounds in transit for export, and with the latter deducted the net total was 558,819 pounds, against 422,014 pounds the previous week and 315,398 pounds the corresponding week last year. This shows a material falling off as compared with a year ago.

The exports of butter from Boston for the week were 146,263 pounds, against 133,441 pounds for the corresponding week last year. From New York the exports were 4239 packages.

The Quincy Market Cold Storage Company reports a stock of 50,075 tubs, against 30,467 tubs same time last year. The Eastern Company has a stock of 6036 tubs, against 50,323 tubs a year ago, and with these added the total stock is 51,093 tubs, against 33,500 tubs last year, an increase for this year of 15,593 tubs. The reduction in stock last week was 11,236 tubs.

Hothouse Spring Lamb.

Spring lamb is for sale now at \$1 a pound or thereabouts. "We don't sell much of it," said a butcher, "we pay wholesale from \$14 to \$20 a carcass for it and a carcass weighs from fifteen to twenty pounds. That makes the cost to us almost \$1 a pound."

Retail dealers do not like to handle much of it, because we do not have much call for it, and the wholesale price being so high, we are able to make only a few cents a pound on it. If by chance anything happens to what we have on hand, the loss of one carcass knocks the profit off a considerable consignment.

"All spring lamb now in the market is known as hothouse lamb. In the last dozen years sheep raisers have discovered a means of forcing their products, just as the vegetable, fruit and flower growers have discovered how to give us strawberries, peaches, cherries and radishes and other delicacies in the midst of winter."

"The season for the hothouse lambs is from about this time until the last of March. Before their introduction those who like good food, and have the money to pay for what they want, were satisfied to eat their first spring lamb about Easter time."

"How to raise hothouse lambs was first discovered by raisers in New Jersey. They had a monopoly of the market for a while. Then the business was taken up by sheep raisers in Kentucky, Missouri and southern Kansas."

"Within the last two years several raisers on the eastern end of Long Island have started in, and I understand they have made money at it. But by far the greater amount of lamb that comes into the market here comes from Kentucky."

"The natural mating time of the sheep in temperate climates is just after cold weather sets in. The lambs are then born in January and February. They are ready for market about Easter or a little before."

"But the Kentucky and Missouri raisers along in June and July pack up their breeding ewes and ship them north to Michigan and Canada to graze. The cold nights there hasten the mating, and the sheep are brought south about the first of December. Shortly after this the lambs are born."

"The sheep when they are brought South are kept in hothouses. These hothouses are usually long rambling buildings with a southern exposure, having in most cases glass in the sides and roof."

"This glass permits the ewes and the lambs to get a good supply of solar heat on clear days. They are kept from the cold winds, and this helps fatten them."



THE SNOW STORM.

"These buildings must be large, for you cannot confine sheep in a small enclosure or they will get restless. Did you ever notice how a flock of sheep ramble about when they are grazing? So in the hothouses the sheep must have plenty of room."

"The Kentucky raisers have also an interesting way of getting good food for the ewes. Wherever possible they have small streams on their places. These streams are banked up so that the water will overflow the grazing land."

"After the water has covered the land for a day or two it is run off and then soon after the young grass springs up fresh, green and tender just as in spring time. This grass is then cut and fed to the ewes. They are not permitted to graze on it or they would overeat themselves."

"This grass gives the ewes rich milk and it hastens the growth of the lambs. The lambs are most suitable for market when they are three months old, though some raisers send them when they are a week or two younger."—New York Sun.

The Old Sewall Farm.

BY CHARLES H. STARNES.
[A paper read before the Brookline Historical Society, Jan. 28, 1902.]

Your president has asked me to write something of the history of the house I am living in, which is on what was formerly known as the Sewall farm. I have also added some personal recollections of my town, especially of that part which I was most familiar, and I shall have to apologize in advance for the plentiful use of the pronouns I and my.

The name Sewall was an honored and respected one in the eighteenth century. It has completely died out as regards the family who occupied this farm, but it is interesting to note the frequent mention of the name in the town records, from the incorporation of the little town in 1705 to the year 1767, and the evidently high standing of the family. Samuel Sewall, Jr., who headed the petition to the General Court to establish the town as a separate village, or "peculiar" (as the phrase runs), was son of Chief Justice Sewall, who owned a large tract of land in what is now known as Longwood. Judge Sewall came into possession of this tract, which embraced several hundred acres, through his wife, who was a daughter of John Hull, a princely Boston merchant, though born a poor boy. John Hull lived in Muddy-river hamlet, in a little house which stood near the Sears Memorial Church, in his youth, but afterwards removed to Boston, where he amassed a large fortune for those days.

Samuel Sewall, Jr., was the first town clerk of the little "peculiar." In 1707 he was chosen treasurer, and from this date until 1715, he was clerk, treasurer and selectman. In 1712 he was chosen representative to the general court, and in 1713 was one of a committee to agree with Mr. Cotton for a burying-place (as told at our last meeting by Mr. Baker in his very interesting paper on the old Brookline cemetery). In 1715, in the apportionment of poles in the new meeting-house, which stood just west of the present

of the First Parish, "Samuel Sewall was given that spot or room next the Pulpit, and valued at five pounds."

In 1724 he was again chosen selectman, but refused. "In the same year it was voted 'ye selectmen and Mr. Sewall and Captain Aspinwall be a committee to audit ye Treasurer's accounts, and if ye find them right cast and well vouch to give said treasurer a full discharge from them.' In 1725 he was chosen moderator, also clerk and treasurer, again in 1726 moderator, and the following year, he, with others, was chosen a committee 'to measure the town, and to Stake Devotion Estate.' This was the Edward Devotion School House area to be set."

After this date Samuel Sewall's name appears but seldom in the records. He lived in a house which, according to Miss Woods' Historical Sketches, and also Dr. Pierce's Town Hall address, was built on or near the site of the house I live in, in 1703. He died Feb. 27, 1753, aged seventy-three years, and was buried in the Walnut-street cemetery. In digging for drains and other purposes about our house, we have come across the foundations of this old house, which was supposed to have been demolished between 1760 and 1770.

In this same old house also lived for a time Henry Sewall, son of Samuel, Jr., who was born March 8, 1720. He was graduated from Harvard College, and made his debut in town affairs by being elected in 1744 fence viewer. In 1745 he was chosen town clerk and treasurer. In 1747 it was voted "that Henry Sewall, Esq., be added to the Church Committee to present the Town's choice to Mr. Brown." Mr. Brown was the second minister of the town, succeeding Mr. Allen, or Allen, as it is sometimes written. The same year, Major White, Captain Sewall and Mr. Isaac Gardner were chosen a committee to view the treasurer's accounts, and also in the following year. In 1749 it was voted, "Henry Sewall, Esq., Isaac Gardner and Nehemiah Davis be a Committee to repair the meeting-house." In 1750, "Abram Woodward, Henry Sewall, Esq., and John Newell be a Committee to dispose of a pew." The following year Mr. Henry Sewall, Esq., Capt. Benjamin Gardner, Mr. Jonathan Winchester and Mr. Ebenezer Davis, committee on a new minister.

Mr. Brown had a short pastorate. It is interesting to see how frequently the town records make mention of the affairs of the church, and what a large place it had in the minds of the inhabitants. In 1752 Samuel White, Edward White, Henry Sewall, Esq., were selectmen and assessors; but in 1754, it was voted "that the assessors for the last year stand a trial with Henry Sewall, Esq., for abatement of part of his rates." Even in the good old times human nature was about the same as now.

In 1759 it was voted, "Jeremy Gridley, Henry Sewall, Esq., Captain Craft, Deacon White, Deacon Davis and Isaac Gardner be a committee to wait on Mr. Joseph Jackson and acquaint him with these votes." "These votes" refers to a call to Mr. Jackson to be the minister of the town. (Mr. Jackson accepted the call, and served as minister until his death in 1765. Dr. Pierce succeeded him in 1767. Dr. Pierce died in 1848, so these two ministers' term of office embraced nearly a century.) Capt. Henry Sewall, as was his later title, continued to serve the town in various capacities, the last mention of him in the records being in 1767, when he was chosen to dispose of a new belonging to Zabdell Boylston, late of Brook-

line, deceased. This was the celebrated Dr. Zabdell Boylston, who introduced the inoculation of smallpox into this country, and whose remains lie in the Old Brookline Cemetery. In 1762 Jeremy Gridley, Henry Sewall, Isaac Gardner, Robert Sharp and Thomas Aspinwall were chosen a committee "on receipt of money from the Edward Devotion Estate." This was the Edward Devotion School Fund about which we have recently heard so much. In the same year, "Received of Jer. Gridley, Henry Sewall, Isaac Gardner and Thomas Aspinwall, Attorneys of Mary Gatecomb, Executrix of the will of Edward Devotion, late of Brookline, the sum of fifteen pounds and fourpence, lawful money for purchasing a Silver Tankard for the Church of ye town of Brookline, according to ye will of Mr. Edward Devotion Dec'd." May 24, 1762. Isaac Gardner, Jun'r, T. Clerk.

A True Copy examined.

This tankard is still in use by the Church of the First Parish.

Henry Sewall died May 29, 1771, aged 51 years. He had three sons and one daughter, Henry, Hull, Samuel and Hannah.

Henry and Hull both died at the age of twenty-four, Hull, Nov. 17, 1767, and Henry, Oct. 17, 1772. Samuel, who thus inherited the Longwood estate, was a young lawyer, practising in Boston at the breaking out of the Revolutionary war, and he became so odious as a Tory that he was obliged to leave his native land, and ended his days in England. His estate was confiscated, and apparently was leased out to different parties, who paid the taxes on the land and buildings for the rental. It is probable that Henry (Captain) Henry Sewall was not living on this estate at the time of his death. The Sewalls also owned a large property on both sides of Walnut street, including what is now known as the Sewall district. The house was probably on the site of the house owned and occupied by Mr. Stephen D. Bennett. I can remember a house which stood on the site of the present one, and which must have been pulled down more than fifty years ago. I find from the tax list of 1763, the oldest list that is known to be in existence, that Henry Sewall was assessed on this Walnut-street estate, and lived there until his death in 1771. In this same tax list, at the very end, is this interesting item:

"For Capt. Sewall's Kent for the year 1762, 11 pounds, 12 shillings, 9 pence, Lawful money."

This probably means the valuation of a negro slave belonging to Captain Sewall.

In 1774 Samuel Sewall (the Tory) was assessed at this same place, and the next year Hannah Sewall, his sister, appears as the owner. Evidently Samuel had taken himself out of the country. In 1776, Hannah was married to Edward Kitchell Wolcott, and from this date until 1791 Mr. Wolcott was taxed as a resident of Walnut street, or the Sherburne road as it was then called. It is interesting just here to note that on the fourteenth day of August, 1784, Edward Kitchell Wolcott and Hannah his wife conveyed to a committee of the town a parcel of land "for the purpose and use of the minister of the Congregational Church in said Town of Brookline, whereof the Rev. Joseph Jackson is the present Pastor, and his successors in that office forever to the exclusion of all and every other denomination that subsists

at present or may in the future." This was probably on the extreme westerly line of town estate, and the land is still used for a purpose of the First Parish.

To return to the Longwood estate. There is a doubt as to when Captain Henry left this house, but from the same tax record of 1763, we find Elijah Whitney taxed for the property, and probably a tenant—this continued until 1767, when only mention I find of Mr. Whitney in the records is, that in 1765 he and Mr. William Ackers were fence viewers. In 1767, and probably this was the date of the building of the present house, Captain Sewall, son of Captain Henry, appears as a party paying the tax. Hull died this same year, and from 1768 to 1772, Thomas Wynne was assessed for the farm. This Wynne was probably a builder, for we find in July, 1774, this record: Voted, "Whether the Town will advance of the Rates of Thomas Wynne for the year 1773, his proportion of charge towards the Tower and Steeple of the Meeting House in said Town," and it passed in the affirmative, not to allow him any abatement or ambiguity about that. The question of a tower to the little church had been discussed pro and con for a number of years, the town year voting to build it, only to have the decision reversed the next year.

The three years from 1773 to 1775, inclusive, Dr. Eliphalet Downer occupant of the farm, and Downer was a man of substance, and may be the same Dr. Downer who afterwards owned the house in the village which was known at that time as the long house, just west of the gate, and which is fast going into decay.

In 1775, we find this vote: "June ye 12th, 1775, that some method be taken to secure the house of Estates belonging to the Refugees now in London, which lately belonged to said Town, and was evidently meant to include this estate, the same year the estate seems to have been divided, for the tax was assessed to Peter Campbell, William King and John Broderick, the next year to Peter Campbell, John Broderick, Brown and Stephen Knight. The 1775 record is lost. From 1778-1783, the place is taxed to William Campbell; a valuation accompanying the tax list, and we find the estate was assessed as containing three hundred acres, valued at eight pounds per acre, house 115 pounds, barns one hundred pounds, outhouse 50 pounds, or a total of 2655 pounds or thereabouts. Campbell was also taxed on 115 pounds personal. His name also appears in the town records as a moderator. In 1781 it was voted that Capt. William Campbell, Dea. Eliza Gardner and Mr. Samuel Croft be a committee to set the prices on the articles on which Mr. Jackson's Salary is to be raised and Report to the Town Treasurer once a month." This was during the Revolutionary war, and the poor little town was using every expedient to pay its quota and yet keep its minister's salary intact. In 1782 Campbell was selectman.

The list of 1784 is lost. In 1785 and 1786 Joseph Goddard occupied the house. He was the father of Deacon Abijah W. Goddard, who has recently died, aged ninety-seven. From 1786 to 1790 the list is lost, but in 1791, our old friend Edward Kitchell Wolcott appears as the party who is assessed for the Sewall estate, which is here called 320 acres. Mr. Wolcott continues to be the party in possession up to and including 1793. The 1794 and 1795 lists are missing.

From 1796-1802, a new occupant appears, Daniel Larned. The only mention I can find of him in records is that Mr. Daniel Larned and Mr. Ebenezer Richards were in 1796 elected hogreaves. The 1803 list is also missing, and in 1804, Wolcott and Stearns appear as joint occupants. This is my grandfather's first appearance in Brookline. The same occupants are assessed till 1807 inclusive. The next year Charles Stearns is taxed for two-thirds the above amount of land, also in 1809. In 1810 Charles Stearns leaves to take the Aspinwall house and farm, the old house on Aspinwall avenue, which has only recently been demolished. From this date until 1821, Mr. Wolcott appears as occupant of the Sewall farm; but this same year, Charles Stearns comes back and buys a portion of the large estate. According to the tax valuation of that year, he was assessed on twelve acres of tillage, raising three hundred bushels of Indian corn, fourteen acres of English mowing, cutting ten tons of hay, two acres of fresh meadow, with one ton of hay, four acres of salt marsh, two tons of hay, three acres of pasture, keeping two cows, twenty barrels of Syder, four acres of woodland, ten acres unimproved land and four acres of unimproved—in all fifty-three acres. For many years Mr. Wolcott's name has appeared in the town records as holding offices of various sorts, but after 1822 Mr. Wolcott seems to have been lost sight of. When my grandfather first came to the place he lived in one-half of our house, and the other half was owned by Mr. Ebenezer Richards. The husband was addicted to the undue use of ardent spirits, and poor Mrs. Wolcott had a hard time. I have heard my grandmother tell of their destitution, and that she had sent in to Mrs. Wolcott many a warm dinner. Mr. Wolcott had built a house on the farm, standing on a lane which is the extension of Pleasant street, not far from Charles River, which he used as a public tavern, and had also built a race track near by; but it proved a poor investment, and after awhile it was abandoned. This house was afterwards owned by the Ebenezer Francis estate, and has only recently been demolished.

[To be concluded next week.]

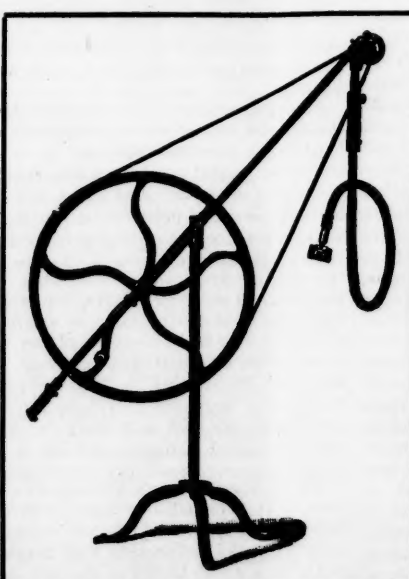
—There are now about one hundred and thirty monkeys on the rock of Gibraltar, the only wild monkeys in Europe.

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Poultry.

Incubators Profitable.

Incubation is a business, and the man or woman who enters into it should be prepared to make a living out of it. The highest practical results in incubation have been achieved by those who have made it a business. The incubator has become a necessity in the poultry raising industry. Of course, it can and does get along without one, but it is not possible that their profits, or even their success, as they may be, would be greater if they used the incubator. Incubators and brooders make winter months profitable investments. They are not dependent upon the climate or season for their successful hatching and brooding. They are machines which, properly made and operated, reduce the whole business to an exact science. It is not necessary to know beforehand pretty well what proportion of our eggs are going to hatch, and then we can contract ahead of time for a certain number of spring and summer chickens. I have had several orders for the winter for two hundred and fifty of spring chickens delivered in March, and I have been unhesitatingly promising to make the delivery on time. They are required that I should live up to my contract. I did so because the incubator and brooder were to be relied upon. Had I depended upon the hens I should have probably failed.

Spring and winter broilers are profitable only when prepared for the right season. This season of high prices is always a period when good broilers are scarce, and when they are a luxury. The average poultry farmer does not have spring broilers ready for market in March, but the man or woman who makes it a business to do this can succeed. When the average farmer or poultryman is sending his chickens to market the owner of a farm where spring broilers are raised for early markets has sold out of his stock, and is laying plans for the future. He is the early bird who catches the early worm. Of course we need both classes, those who raise early broilers, and those who supply them for the late spring and summer markets, but of the two the former is the more profitable, because more difficult and risky. The work of raising chickens in the cold months is a delicate business, that requires experience and intelligent study. Any one beginning the work for the first time should go slow. Do not try to raise too many for the first year, so that if mistakes are made the loss will not be disastrous. Beginners too frequently get their incubators, and then find them to be overpriced, and attempt to raise so many that if an accident happens they are practically ruined. Go slow the first year, increase the output the second year, and by the third or fourth you are in a position to bid for great things. Even with the incubator and brooder we must live and learn, but sometimes the learning is disastrously discouraging.

Pennsylvania. ANNIE C. WEBSTER.

Poultry and Game.

There has been a light supply of poultry, but the high range of prices asked has reduced the demand, and the weather of Monday and Tuesday was not favorable to a large trade.

Northern and Eastern fresh killed is scarce, and would go higher if demand were better, but choice roasting chickens are selling at 18 to 20 cents, broilers 20 to 25 cents, and common to good lots at 12 to 15 cents. Extra choice fowl bring 14 cents, with fair to good 12 to 13 cents. Pigeons are higher at \$1.50 a dozen for choice and 75 cents to \$1.25 for fair to good. Choice large squabs bring \$2.50 to \$3 a dozen, and mixed lots \$1.50 to \$2.25. Western dry-packed poultry in boxes are in fair supply for the light demand, but a few choice chickens bring 14 cents and more sell at 12 to 13 cents. Some selected large fowl sell at 12 to 13 cents, but fair to good are 11 to 12 cents. Choice large capons are in demand at 16 to 17 cents, but small and medium duck at 12 to 15 cents. Good to choice ducks are 14 to 16 cents and geese 10 to 12 cents. But few turkeys offered; choice hens, heads off, sell at 16 cents to 17 cents, or one-half cent lower with their heads on, choice foms 15 to 16 cents, mixed lots 13 to 16 cents, old toms 13 to 14 cents and No. 2 12 to 15 cents in barrels. In barrels rates average lower, good to choice chickens 12 to 14 cents, fowl 12 cents, old roosters 8 cents and turkeys from 15 to 16 cents for choice to 14 or 15 cents for common to good. Live fowl in light supply and in demand at quotations, fowl 11 to 13 cents, chickens 10 to 11 cents and old roosters 7 to 6 cents.

Game continues dull. There are a few grouse in cold storage, \$1.75 to \$2 a pair for dark, and Western quail \$2 to \$3 a dozen. Ducks are scarce and variable in quality. Choice canvasbacks \$2 to \$2.50 a pair and poorer at 20 cents to \$1.50, red-heads, choice \$1.50, fair to good 50 cents to \$1, mallard 75 cents to \$1, and sheldrakes 40 to 60 cents, and small shore duck 20 to 45 cents a pair, brant \$1.50 to \$1.50 a pair. Wild geese from 75 cents to \$1.25 each, in cold storage. Rabbits have advanced to 15 and 20 cents a pair and jacks 75 cents to \$1. Venison and mutton only in storage at 25 to 40 cents a pound for good cuts.

Horticultural.

Orchard and Garden.

Our Oregon Agriculturist tells of a man who sent something in the apple line to a friend in the East, and "found the Davidson Fruit Company of Hood River were rather doing him a favor in letting him have two boxes of strictly first-class apples at \$2 a box. Yet there were good River apples selling in the retail market at Portland at \$1.25 a box, and fairly good apples poorly packed could be bought at 90 cents a box." It was careful packing and careful packing that doubled the value of those he bought. New England growers need to learn this lesson. It is not enough to adopt the bushel box for packing apples, and that makes a very convenient one for handling as well as a quantity that one may take home for family use at any time. The box also admits better of examination as to the quality and condition of contents than the barrel, and if our New England apple growers would adopt the box, instead of standing by the use of the barrel, the profits of the

apple crop would be largely increased.

That our readers may see something of educational work that is being done in Canada, and what we need to be doing if we would compete with them in fruit growing, we clip the following from the report made by Prof. H. L. Hutt, Ontario Agricultural College, at the meeting of the Ontario Agricultural and Experiment Station at Guelph, Dec. 9, in regard to fruit experiments:

This work was begun eight years ago with sixty experimenters; now they number one thousand experimenters located in different parts of the Province. During the time this work has been carried on 2250 currant bushes, 3220 gooseberry bushes, 3000 blackberry plants, 400 black raspberry plants, 400 red and white raspberry plants, and 25,000 strawberry plants, or a total of 42,964 plants, were sent out to members of the Union. The varieties of strawberries sent out last spring were: Clyde, Haverland, Saunders and Van Deman. These were sent out to 116 experimenters. In red raspberries the varieties selected were: Cuthbert, Golden Queen, Marlboro and Shaffer. Currants, leading varieties, Fay's Prolific, Ruby Castle, Victoria and White Grape. Gooseberries, leading varieties, Pearl and Downing. Professor Hutt concluded his report by saying that the greatest direct good from these experiments is obtained by the individual experimenters who carry on the work.

We have for several years been an advocate of the doctrine that the stock into which a graft is inserted exerts an influence upon the fruit that may materially change its character. Our attention was first called to this matter by an orchardist who showed us certain trees grafted with scions taken from the same tree and set in seedling trees most of which had fruited before being grafted. As he raised the seedlings, out the scions and did the grafting himself, he knew the history. There were some set on a very late, hard winter variety, which produced fruit that kept remarkably well, and others set on an early variety, which were a seedling from the Red Astrachan, that were but little more than a fall apple. There were some grafts in a sweet fall apple that bore a fruit which was not more tart than the Hubbardston Nonesuch, and others that were so sour as to be better fitted for cooking purposes than for eating raw. Some grafts set on an old-fashioned High-top Sweeting produced fruit that was ready to decay almost as soon as picked from the tree if not before. Yet he assured us that the scions were all taken from one tree, a Baldwin that he thought bore the best apples he ever ate.

In American Gardening for Jan. 4, there is the statement that Mr. G. T. Powell, who has a reputation as horticulturist and nurseryman, says that from trees of Twenty Ounce scions set in Early Harvest stocks he has fruit of that variety ready to ship in August, although it is generally classed as a late fall apple, in its prime from November to January. Also, by setting scions of the Beurre d'Anjou pear in Keifer stock, he has succeeded in making that variety much later than its usual season of October ripening. By the way, could not the fault of the Clapp's Favorite pear be redeemed from its fault of rotting on the tree, or almost as soon as picked, if set in stock of the Keifer or other hardy and long-keeping varieties? We consider it among our best early sorts, if it were not for this fault, but for home use we would be willing to have it a little later, if we could be sure that it would not decay at the core while we were waiting for it to ripen. An old friend used to say he had to stay right by his Clapp's pears and watch them after they were picked, if he wanted them at their best.

Another corroboration of our opinion is given in Gardening. It says that Mr. W. C. Coburn, President of the Colorado State Horticultural Society, had found the Arkansas Black apple a very shy bearer with him, producing but one or two boxes of fruit in a year on mature trees, while other varieties that grew near it, of the same age, produced ten or fifteen boxes. He used scions from it in grafting some Russian stocks, and found they produced much more freely. All these statements show the influence of the stock upon the graft and its fruit, and many others could be cited if more evidence was needed.

It may prove a profitable scheme to put a heavy mulching on the whole or a part of the strawberry bed when the ground is frozen and there is two or three inches of snow on it. This will prevent the plants from starting early and blossoming early, thus avoiding danger from late frosts in the spring. It will also cause them to mature their fruit much later, and recently the late berries have sold at the highest prices, as the early ones come too closely in competition with those grown farther South, which sometimes come in such abundance as to run the price below the limit of profit before a berry has ripened in Massachusetts. It is true that the natives bring a little better prices than the Southern fruit, but they do not bring such prices as the late ones that come to us from Maine and Nova Scotia, and if ours can be made to mature about three weeks later than usual, it will be these last that we shall have to contend with. Select the later varieties for this experiment. In the spring rake the mulch off the plants and leave it between the rows to keep the ground cool and moist. If not raising berries for market it may be desirable to have a late picking for the family table.

Domestic and Foreign Fruit.

There is but a moderate supply of apples, 4402 barrels received last week and 2512 exported. The prices remain unchanged, but stock must be good to bring top quotations. King \$1.50 to \$1.50 a barrel, Spy and No. 1 Maine Baldwin \$4 to \$5, Greening \$3.75 to \$4.25, Baldwin and Greening common \$3.25 to \$3.75, Western Gano \$4.25 and Ben Davis \$3.50 to \$4.50, Talman Sweet \$2.50 to \$3.50, mixed varieties \$2.50 to \$3.50 and No. 2 \$2.50 to \$3.25. Cranberries in light supply, but with only moderate demand. Cape Cod fancy lots \$7 to \$7.50 a barrel, choice sound \$5.50 to \$6.50, common to good \$4 to \$5, crates \$2 to \$2.50 and Jersey boxes \$1.75 to \$2.25. Florida strawberries in light supply, choice and firm at 45 to 50 cents a box and fair to good at 30 to 40 cents.

Florida oranges in fair supply, but a light demand. Selected choice choice bright are \$3 to \$3.50 a box, good to choice \$2.75 to \$3, good to choice russet \$2.50 to \$2.75, large 96 counts \$1.75 to \$2.25, Indian River bright \$3.50 to \$4. But few tangerines coming, and they are \$5 to \$6 a case, mandarins \$2.50 to \$3 a box, and grape fruit good to choice \$5.50 to \$7. Florida pineapples smooth Cayenne \$2.50 a box and Abba \$2 a case. These are rates at first hands, and the jobbers want 25 to 50 cents a box more. Jamaica oranges \$5.50 a barrel or \$2.75 to \$3 a box, California navels 112, 126 and 150 counts \$2.75 to \$3, 176 and 200 counts \$2.75 to \$3.25, 250 and 288 counts \$2.50 to \$2.75. Seedlings scarce at \$2.25 to \$2.62. Valencia cases 420 count \$4.00 to \$4.50, large \$5 to \$6



ABUTILON.

and 714 counts \$5.50 to \$6.50. Grape fruit and Louisiana \$13.75, Kansas City and Louisville \$13.50, Buffalo \$13, Duluth \$12.50, Minneapolis \$12 and St. Paul \$11.50. The Montreal Trade Bulletin gives market easier with liberal offerings, and sales of 400 to 500 tons of No. 2 at \$8 to \$8.15, f. o. b. at country points, and No. 2 timothy offering at \$8 f. o. b. at stations on Canadian Atlantic Railroad. The London market is reported less active, but prices not noticeably changed; but while buyers are favored a little Canadian hay is selling favorably for the shippers. Demand lighter at Liverpool, but good Canadian long sells at \$19.20 to \$19.48 a long ton, Chilian at \$18 and alfalfa at \$14.46 at the wharf in small lots.

Vegetables in Boston Market.

This week has been dull in the vegetable market, as not much trade was moving on Monday or Tuesday. A fair supply on hand, but winter vegetables are advancing a little. Beets are 75 to 85 cents a box and parsnips 60 to 70 cents, with carrots at 50 cents and flat turnips 35 to 45 cents, yellow turnips 75 to 90 cents a barrel. Western Massachusetts onions \$3.75 to \$4 a barrel and York State \$3 to \$3.50. Havana \$2.40 to \$2.50 a crate and Spanish \$3.50 a case. Leak 50 cents a dozen and shallots 15 cents a quart. Radishes lower at 25 cents a dozen. Good celery in long boxes \$4 to \$5. Some lots small \$3 a box, rather poor. Salsify 75 cents to \$1 a dozen, artichokes \$1.25 to \$1.50 a bushel. French artichokes \$3 to \$3.50 a dozen. No. 1 members \$15 to \$18 per hundred, No. 2 about half price. Peppers \$4.50 for six basket carriers. Florida eggplant \$7 to \$8 a case for good, but some at \$5 to \$6. Hothouse tomatoes 30 to 35 cents a pound, and Florida \$3 to \$3.50 a carrier. Hubbard squash scarce at \$85 to \$100 a ton, and Marrow \$80 to \$85. A few Florida summer, come in at \$3 to \$3.50 a crate. A little poor asparagus sometimes, but none and a poor price could be quoted. Rhubarb \$8 to 9 cents a pound. Mushrooms 30 to 75 cents.

Cabbages in moderate supply at \$2 to \$2.50 a barrel. Red 75 cents to \$1 a box. California cauliflower \$2.25 to \$2.75 a case. Sprouts scarce at 12 to 15 cents a quart. Norfolk kale \$1 a barrel and spinach \$3.50. Lettuce is from \$1 to \$2 a box. Beet greens \$1 to \$1.20, dandelions \$1.75 and parsley \$2.25 to \$2.75. Endive and escarol \$1.25 a dozen, and romaine \$1.50 to \$1.75. String beans only in small lots at \$3 to \$6 a crate, and California peas scarce at \$2 to \$2.50 a crate.

Potatoes are in full supply, and demand not as good as last week. Arrostook Green Mountain extra \$2 to 83 cents, fair to good 78 to 80 cents. Hebrons extra 78 to 80 cents and fair to good 75 cents. Rose 75 cents and Dakota Red 68 to 70 cents. P. E. Island Chenagons 65 to 68 cents and Dakota Red 75 to 78 cents. Scotch, 168-pound sacks, \$2 and Belgian \$1.75 to \$1.90. Jersey double head sweet potatoes not very good generally, and sell from \$3 to \$3.75 a barrel. Vineland cloth heads in light supply at \$4.25 to \$4.50.

The Hay Trade.

While the receipts of hay at the Eastern markets was less during the week, the supply on hand, or known to be on the track, was enough to prevent any advance in prices excepting on highest grades at two or three points, where the railroads have been unwilling to accept shipments.

Boston received 508 cars, of which 284 were billed for export, and 14 cars of straw. Corresponding week last year 340 cars, of which 118 were billed for export, and 10 cars of straw. A moderate shipment of choice timothy at \$17 to \$17.50 a ton in large bales and \$16 to \$17 in small bales would be readily taken, and so would No. 1 at \$16 to \$16.50, No. 2 at \$14 to \$15, No. 3 and clover mixed at \$12 to \$13 and clover \$12 to \$12.50. Rye straw dull at \$13 to \$16, tangled rye \$11 to \$12 and oat straw \$9.50 to \$10.20. Provisions are heavy for past three or four weeks. A good demand for choice hay, large or small bales at \$17.50, but No. 1 easy at \$16.50 to \$17, No. 2 dull at \$14 to \$15 and No. 3 at \$12 to \$13. Clover mixed is almost unsalable at \$12 to \$13 and rye straw firm at \$16.

In New York city best grades are firm, with the total receipts only 7296 tons, and fair export demand, though much less than previous week. Prime timothy \$17 to \$18, No. 1 \$16.50 to \$17, No. 2 \$15 to \$16 and No. 3 \$12 to \$13, shipping \$11 to \$11.50, clover mixed \$10 to \$12 and clover \$11. Rye straw plenty, but in good demand. No. 1 long \$15 to \$15.50, No. 2 \$14 to \$14.50, oat \$9 to \$10 and wheat \$9 to \$12. Jersey City has received less because of the refusal of railroads to make shipments, and prime is in demand at \$17 to \$18, No. 1 \$16 to \$17, No. 2 \$15, No. 3 \$12 to \$13. Clover mixed, No. 1 in fair demand at \$13, No. 2 dull at \$11 to \$12, No. 1 clover is in fair demand at \$12 and No. 2 at \$10 to \$11. Rye straw in small demand at \$16 for long No. 1 and \$13 for No. 2, tangled rye weak at \$9 to \$10, oat and wheat \$9 to \$10 with little call.

The Hay Trade Journal gives highest prices at various markets as \$18 at New York and Jersey City, Boston, Providence and New Orleans \$17.50, Nashville \$17, Philadelphia \$16, Norfolk and Baltimore \$15.50, Richmond, St. Louis and Memphis \$12, Pittsburgh and Cincinnati \$14.50, Chi-

ca \$14, Milwaukee \$13.75, Kansas City and Louisville \$13.50, Buffalo \$13, Duluth \$12.50, Minneapolis \$12 and St. Paul \$11.50. The Montreal Trade Bulletin gives market easier with liberal offerings, and sales of 400 to 500 tons of No. 2 at \$8 to \$8.15, f. o. b. at country points, and No. 2 timothy offering at \$8 f. o. b. at stations on Canadian Atlantic Railroad. The London market is reported less active, but prices not noticeably changed; but while buyers are favored a little Canadian hay is selling favorably for the shippers. Demand lighter at Liverpool, but good Canadian long sells at \$19.20 to \$19.48 a long ton, Chilian at \$18 and alfalfa at \$14.46 at the wharf in small lots.

The four leading hay and fodder crops of Kansas, sorghum, millet and Hungarian, Kafir corn and alfalfa, increased from 908,885 acres in 1895 to 1,364,141 acres in 1901, or more than doubled. Alfalfa has increased at the expense of the clover crop, and is now the second fodder crop in the State, exceeded only by timothy.

There is a steady market for pork supplies, with prices about the same. Fresh pork tenderloins are very scarce, and about 25 cents per pound is the asking price when available. For fresh pork chops about 13 to 14 cents is the price, with fresh rib roast to 12 to 13 cents per pound.

The cost of salt pork is unchanged at 11 to 12 cents per pound, with pig kidneys about 7 cents per pound, and pigs' tails, heads and snouts at about the same price. Chipped dried beef is 15 to 16 cents per pound with Hamburg steak at 10 cents per pound.

Boston Retail Markets.

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For sliced ham the cost is unchanged at 25 cents per pound, but a whole or half ham can be brought for 11 to 13 cents per pound. Boneless ham boiled is 30 cents per pound, while tried-out pork scraps remain at 15 cents per pound, with corned spare ribs at eight cents per pound.

There is yet a wide range in the price of bacon. General offerings are 14 cents per pound, but for some special makes the range is up to 18 to 20 cents per pound. The cost of English rolled bacon is 14 cents per pound, while Quaker scrapple is 12 cents per pound, and with boneless pigs' feet at 12 cents per pound.

The butter market shows a scarcity of best fresh grades, and prices are higher. For best creamery butter cut from tubs, about 33 cents is the cost, with lower grades of tub butter ranging down from 25 to 28 cents per pound.

For fancy freshly made creamery in prints, about 35 cents per pound is the cost, with dairy prints costing 28 cents per pound. Box butter is higher at \$1.40 for best five-pound boxes of freshly made creamery, with lower grades unchanged, the range being \$1.25 to \$1.40 per five-pound box.

The egg market is short, cold storage supplies being practically used up, and consumers are obliged to depend on fresh arrivals. The cost of best hen eggs ranges from 40 to 45 cents per dozen, with fresh Western stock costing 35 cents per dozen. Pekin duck eggs are ranging in price at 40 to 50 cents per dozen as to size.

The supply of Florida strawberries coming in is liberal for the season, with the cost at about 40 to 50 cents per quart for good fruit. Grape fruit is \$1.50 to \$3 per dozen, with tangerines and mandarins at 30 to 40 cents per dozen. The cost of oranges is 30 to 40 cents per dozen, for both Florida and California fruit.

NEW YORK MARKETS.

Lighter receipts of foreign potatoes and the storm interfering with shipments of domestic cause a firmer feeling in the market. Maine prime are \$2.25 to \$2.40 a sack and State \$2 to \$2.25 a sack. Jersey double head sweet potatoes not very good generally, and sell from \$3 to \$3.75 a barrel. Vineland cloth heads in light supply at \$4.25 to \$4.50.

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Soft Harness

You can make your harness as soft as a glove and as tough as wire by using EUREKA Harness Oil.

EUREKA Harness Oil

Made by STANDARD OIL CO.

To attain this great result the 7,500,000 people of New York State were taxed not only the \$50,000 paid for bounty, but as the United States uses about 60 pounds of sugar per capita in a year, and the people of New York like it almost as well as any one, they paid a tax of 75 cents to \$1 each, or from \$3,000,000 to \$7,500,000, beside which the \$50,000 bounty seems a small sum, and about 67,000,000 other people were taxed at the same rate to prevent Cuba from sending us sugar so that it can be sold at 34 to 40 cents a pound.

—There was a rather better trade in beef, but the market is irregular, with some sellers claiming a stronger market, while others say the prices are easy. The West is firm, however, with shippers calling on sellers to get at least 25 cents per 100 more. Very choice sides 91 cents, extra sides 91 to 94 cents, heavy 81 to 91 cents, good 81 to 84 cents, light grass and cows 71 to 81 cents, hinds 111 to 121 cents, good 91 to 111 cents, light 81 to 91 cents, extra fore 61 to 71 cents, heavy 61 to 64 cents, backs 61 to 64 cents, ratties 41 to 51 cents, chucks 61 to 71 cents, short ribs 13 to 14 cents, rounds 9 cents, rumps 9 to 13 cents, rumps and loins 10 to 16 cents, loins 13 to 20 cents.

—The visible supply of grain in the United States and Canada on Feb. 15 included 35,500,000 bushels of wheat, 11,320,000 bushels of corn, 4,200,000 bushels of oats, 2,283,000 bushels of rye and 2,145,000 bushels of barley. Compared with previous week, this shows a decrease of 1,064,000 bushels of wheat, 488,000 bushels of corn, 126,000 bushels of oats and 72,000 bushels of rye, with an increase of 250,000 bushels of barley. One year ago the supply was 37,582,000 bushels of wheat, 17,631,000 bushels of corn, 10,302,000 bushels of oats, 1,174,000 bushels of rye and 1,069,000 bushels of barley.

—The mutton market is firmer: Lambs, 10 to 12 cents, fancy and Brightons 10 to 12 cents, yearlings 7 to 9 cents, muttons, 7 to 9 cents, fancy 7 to 9 cents, veals 9 to 11 cents, fancy and Brightons 10 to 12 cents.

—Eggs have been in small supply and prices have advanced almost daily during the week: Nearby and Cape fancy brown sold at 37 to 38 cents, Northern Eastern choice fresh and Western fancy at 37, and some at 38 cents, selected fresh at 36 to 37 cents, with fair to good Western or Western 34 to 36 cents. As there are no refrigerator eggs they may go yet higher, but this is above the record for a long time.

—Pork and lard are unchanged. Pork products are firm, with ribs one-half cent higher. Quotations are: Heavy backs \$21, medium \$20.25, long cut \$21, lean ends \$21.50, bean pork \$17.50 to \$18, fresh ribs 12 cents, smoked shoulders 91 cents, fat 101 cents, in pairs 111 to 113 cents, hams 12 to 13 cents, skinned hams 13 cents, sausage 10 cents, Frankfurt sausage 91 cents, boiled hams 17 to 17 1/2 cents, bacon 12 to 13 cents, bolognas 9 cents, pressed hams 12 cents, raw leaf lard 111 cents, rendered leaf lard 111 cents, in pairs 12 to 13 cents, pork tongue \$2.25, loose salt pork 104 cents, brisquets 11 cents, sausage meat 91 cents, Quaker scrapple 10 cents country dressed hogs 71 cents.

GRAVES' MANGE CURE

For Dogs, Cats, Horses, Cattle and Sheep. All Skin Diseases they are subject to can be cured by this valuable remedy. Also

GRAVES' MEDICATED SOAP

For Fleas and Lice for Dogs, Cats and Horses. Sure to kill them quick.

No. 11 PORTLAND STREET Boston, Mass.

Lot of beautiful Angora Kittens in exquisite colors charming dispositions and very stylish. Send 10c for picture illustrating. WALTON KIDNEY PATENT, Box 3164, Boston, Mass.

POULTRY KEEPING.

HOW TO MAKE \$500 A YEAR KEEPING POULTRY.

A 45-Page Illustrated Book, Telling How to Do It, and All About Profitable Poultry Raising.

Containing Chapters on How to Make \$500 a year Keeping Poultry; Poultry Yards and Houses; Choice of Breeds; Care of Poultry; Setting the Hen and Incubation; Hatching and Care of Chicks; Patterning and Treating Poultry for Market; Diseases of Poultry; Ducks, Geese and Turkeys; Canizing; Receipts and Incubators; Use of Green Bone for Poultry, etc. Sent to any address on receipt of twenty-five cents. Stamps taken. Mention the PLOUGHMAN.

WALTON COMPANY, Box 3254, Boston, Mass.

TURKEYS

No book in existence gives an adequate account of the turkey, its development, from the wild state to the various breeds, and complete directions for breeding, feeding, rearing and marketing these beautiful and profitable birds. The present book is an effort to fill this gap. It is based upon the experience of the most successful experts in turkey growing, both as breeders of fancy stock and as raisers of turkeys for market. The prize-winning papers out of nearly 20 essays submitted by the most successful turkey growers in America are embodied, and there is also given an essay on turkey culture, from different parts of the country, including Canada and New Brunswick, that the reader may see what ways have proven successful in each locality. Profusely Illustrated. Cloth, 12mo Price, Postpaid, \$1.00.

HOW TO GROW THEM

Address MASS. PLOUGHMAN BOSTON.

The Markets.

BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WATERTOWN AND BRIGHTON.
For the week ending Feb. 26, 1902.

Shutes
Cattle Sheep Swine Fat Hogs Veals
T. week. 4340 8624 85 30,000
W. week. 2362 8003 80 28,300

Prices on Northern Cattle.
Per hundred pounds on total weight of
cattle and meat, extra, \$6.00; 6.75; first
quality, \$6.00; second quality, \$5.00; 5.25;
third quality, \$4.00; 4.25; a few choice single pairs,
\$5.00; some of the poorest, bulls, etc., \$3.00;
Western steers, 4.75.

Cows and Young Calves—Fair quality
\$5.00; extra, \$4.00; 4.25; fancy milk
cows, \$6.00; 6.25; a few choice single pairs,
\$7.00; 7.25; thin young cattle for farmers; Year-
lings, \$3.00; 3.25; two-year-olds, \$1.40; 1.50; three-year-
olds, \$2.00; 2.25.

Per pound, live weight, 24¢; extra,
25¢; sheep and lambs per head, in lots, \$2.00;
in small lots, 4.00; 4.25.

Calves—Per pound, 6.00; 6.25; live weight;
dressed, wholesale, 1.25; retail, \$2.25; 2.50; country
dressed, 7.00; 7.25.

Calves—Brighton—4.00; 4.25; country lots, 5.00;
5.25; 5.50; 5.75; 6.00; 6.25; 6.50; 6.75; 7.00; 7.25;
7.50; 7.75; 8.00; 8.25; 8.50; 8.75; 9.00; 9.25; 9.50; 9.75; 10.00; 10.25; 10.50; 10.75; 11.00; 11.25; 11.50; 11.75; 12.00; 12.25; 12.50; 12.75; 13.00; 13.25; 13.50; 13.75; 14.00; 14.25; 14.50; 14.75; 15.00; 15.25; 15.50; 15.75; 16.00; 16.25; 16.50; 16.75; 17.00; 17.25; 17.50; 17.75; 18.00; 18.25; 18.50; 18.75; 19.00; 19.25; 19.50; 19.75; 20.00; 20.25; 20.50; 20.75; 21.00; 21.25; 21.50; 21.75; 22.00; 22.25; 22.50; 22.75; 23.00; 23.25; 23.50; 23.75; 24.00; 24.25; 24.50; 24.75; 25.00; 25.25; 25.50; 25.75; 26.00; 26.25; 26.50; 26.75; 27.00; 27.25; 27.50; 27.75; 28.00; 28.25; 28.50; 28.75; 29.00; 29.25; 29.50; 29.75; 30.00; 30.25; 30.50; 30.75; 31.00; 31.25; 31.50; 31.75; 32.00; 32.25; 32.50; 32.75; 33.00; 33.25; 33.50; 33.75; 34.00; 34.25; 34.50; 34.75; 35.00; 35.25; 35.50; 35.75; 36.00; 36.25; 36.50; 36.75; 37.00; 37.25; 37.50; 37.75; 38.00; 38.25; 38.50; 38.75; 39.00; 39.25; 39.50; 39.75; 40.00; 40.25; 40.50; 40.75; 41.00; 41.25; 41.50; 41.75; 42.00; 42.25; 42.50; 42.75; 43.00; 43.25; 43.50; 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Our Homes.

The Workbox.

CROCHETED AFGHAN.

This is worked in double rows of shell stitch, an upper and lower one, thus making the afghan reversible.

Use six shades of single Germantown yarn, from dark brown to a sea-shell pink and back again to dark brown.

Alternate stripes of plain afghan stitch might be worked if desired to contrast with the shell stripe.

For a shell stripe chain 22 stitches with the darkest shade of red brown.

1st row—With the same color as chain, miss 2 loops, and into the third work 1 shell of 7 trebles, (*), miss 4, 1 shell (7 trebles) in the next stitch, repeat from (*) 3 times, turn (5 shells).

2d row—3 chain, 4 trebles on first treble of first shell, taking up back stitch, 1 shell (7 trebles) on seventh treble of same shell, (*), 1 shell in seventh treble of next shell, repeat from (*) twice, 1 shell of four trebles on the seventh treble of last shell at end of row. (The shells in this row come between those of last row.)

3d row—One shell (7 trebles) on fourth treble of first shell (*), 1 shell on seventh treble of next shell, repeat from (*) 3 times, 1 double in fourth treble of last shell at end of row, break off, turn.

4th row—Take the next shade of red, and fasten with a double in the double treble made, 2 chain, 4 trebles in same double treble, 1 shell on seventh treble of previous row and work 1 shell (7 trebles) on the fourth treble of the second shell of the second row, (*), 1 shell on fourth treble of the next shell of same row, repeat from (*) twice, 1 double on last treble of the shell at end of third row, turn. The shells in this row fall over those of the second row. The shells of the fifth row will fall over those of third, those of the sixth over the fourth, and so on. Continue repeating the last row throughout, remembering that the shells are always worked in the back horizontal row, and that in beginning every other row to work a shell of 4 trebles instead of one of 7 trebles.

Do 3 shell stripes and 3 plain afghan stitch stripes. Join.

Border: 1st row—With pink (the lightest shade) work 2 trebles, 2 chain, 2 trebles all under the 3 chain of the first shell of second row at the beginning of the stripe. (*), 3 chain, miss 2 shells at side of stripe, 1 shell of 2 trebles, 2 chain, 2 trebles all under the next 3 chain between the third and fourth shell; repeat from (*) end, break off.

2d row—With next lightest shade fasten at top of first treble and work up 2 chain, then 2 trebles, 2 chain, 2 trebles (first shell) under the 2 chain of the previous shell; (*), 2 chain, 1 shell under 2 chain of the next shell; repeat from (*) end; break off. Repeat this row until you have worked a row of shells with each of the next 3 shades, which brings you to the dark brown or last of the 6 shades which is worked in scallops across bottom thus: Fasten with double in the first shell of second row, 3 chain, 1 double under top of first treble of first shell of border; (*), 3 chain, 1 double under the loop formed by the 3 chain; in beginning next shell, repeat from (*) 3 times; (*), 1 chain, 1 scallop of 9 trebles under the 2 chain of shell of the fifth row, 1 chain, 1 double under the loop formed by 3 chain in fifth row, 3 chain, 1 double under the loop formed by 3 chain in fourth row, 3 chain, 1 double under loop formed by 3 chain in the third row, 3 chain, 1 double under the loop formed by 3 chain in second row, 3 chain, 1 double under the loop between the second and third shells of stripes, 3 chain, and go back making 1 double under each loop as before, repeat from (*) to end.

EVA M. NILES.

Eczema.

Eczema is a name applied to certain inflammations of the skin. The forms of the disease as well as the appearances it presents are extremely numerous.

Most forms appear first in the character of small, blister-like elevations which contain a watery fluid. These soon burst, leaving the skin scaly, dry and almost invariably the seat of intense itching. The appearance, which has been compared to small water blisters, ordinarily lasts but a day or so, while the red, scaly appearance may last for weeks or months. Fever is not ordinarily encountered with this eruption.

A great deal is usually made of eczema, and much is done before the physician is consulted to combat it. In almost every instance what is done by the sufferer and his friends is overdone. The ointments ordinarily used are too irritating, too frequently applied, and too infrequently removed by bathing.

Bathing the affected part at least once a day is a profitable measure. The best Castile soap should be used, and this but sparingly. The drying of the area affected should be done with a soft towel with a patting motion and without friction. Plain cornstarch admirably completes the drying process, and for this reason is in itself a valuable remedy, especially in the moist eczema of infancy. The skin if kept clean and dry is placed under the best possible conditions for recovery.

Remedies of a too active or powerful nature prolong and increase the disease; for example, glycerine without the addition of any medicament has the effect upon certain delicate skins of an active irritant. It is necessary to emphasize the harmfulness occasioned by remedies containing too large a proportion of stimulating ingredients, since this disease is one so frequently treated by home remedies.

It is not uncommon to find the error committed of heavily covering the area affected, in the belief that protection from the air is productive of good. The very reverse is true. A tightly fitting hood, for example, which presses the ears closely against the head, directly favors attacks of eczema at the point of contact of the opposite surfaces.

Not a few cases of chronic eczema are dependent upon systemic causes. The causes in these instances demand attention. Sluggish condition of the bowels, kidneys and liver must be properly eliminated. Various veins often cause eczema of the lower limbs. Later it is apt to degenerate into ulcers. Usually, eczema dependent upon various veins requires the support afforded by elastic stockings before permanent cure is effected.

Some cases baffle the skill of the most experienced physicians, but most require but cleanliness and the removal of the original causes to effect a cure.—Youth's Companion.

Washing Clothes.

Two distinct processes for washing clothes are now in use in the family laundry. In one case the clothes are boiled as our grandmothers boiled them; in the other they are not boiled. The latter method, which is the newer one, is erroneously called the "cold process" method, though warm, not cold, water is generally used. Sometimes even hot water is employed. The temperature of the water and the question whether the

clothes shall be boiled or not depends upon the laundry soap used. There are many varieties of laundry soap in the market today which contain paraffine or naphtha, and it is not necessary to use anything but warm water with these soaps. Most housekeepers, however, find it more agreeable to heat water quite hot for washing in winter, and easier to wash in warm water, no matter what soap is used.

Oldtime housekeepers who have established rigid ideas of the proper method of washing clothes are often, no doubt, shocked when they see how derelict the modern woman is in washing, according to old ways. They cannot deny that her clothes are as sweet and white as their own, and they know she does her work easier than they do. It is only a few generations since the oldtime pounding barrel was abandoned. No one pounds clothes now, and if the few persons are boiling their clothes today, only a few now use old-fashioned soaps of a strong alkali nature, which demand that the clothes shall be boiled. A large number of people use some variety of soap which will do its best work in warm or hot—not boiling—water. When clothes are boiled, after they have been washed with one of these soaps containing paraffine or naphtha, they are not as white as they are when not subject to a boiling temperature.

All substances obtained from crude petroleum used in cleansing, whether gasoline, benzene or naphtha, are generally included in this country under the name naphtha, and are locally called paraffine England. It is very different from paraffine wax. This paraffine from petroleum has been successfully used for years in England in washing clothes, and only lately in laundry soaps in this country.

When clothes are washed by the "cold process" the method to be pursued is an easy one. If there is no regular supply of hot water in the house, let the boiler be filled early in the morning by some man of the family. It is too hard work for a woman. Shave a bar of the proper kind of soap. Put the shaved soap in two quarts of water in a tin kettle, and set it on the stove, where it will melt, but not boil. When the breakfast is cooked, the water in the boiler will be hot enough to wash with. Divide it between two large washtubs set out on a stand for work. Divide the soap which has been melted also between them, and stir it in. Put the white clothes in the first tub of soapy hot water, and let them soak for half an hour, while breakfast is served. At the end of this time rub the white clothes through this water, and wring them into the second tub, from which they must also be rubbed and wrung into another tub or a clothes basket to be rinsed. Wash the coarser cottons, then the flannels, and then the calicoes through these two waters, and lay each set by itself. Measure the empty tubs, or let some strong, able-bodied man do it, and have them filled again with warm, but not very hot water, to rinse the clothes in. Warm water will take the soap out better than cold. Rinse the white clothes first. They should have been covered, so as not to become perfectly cold. After they have been thoroughly rinsed in the two tubs of water, wring them very dry. Starch those that need it, and hang them all out on the clothes line. Rinse the flannels, coarse clothes and calicoes successfully through the rinsing waters. Starch the calicoes that need it, and hang them all out.

Where the attic is arranged so that lines can be stretched in it to dry clothes in winter or wet weather, it is a great convenience. If this is not possible, it is better to do the washing in some shed or other room adjoining the kitchen, where a stove can be set up. This can be used as a drying room. It is not desirable to have wet clothes drying in the kitchen. Clothes that have been hung out of doors and are not yet dry, but frozen, may be hung in such a drying room and dried by the same warm fire by which the washing was done. It is a positive injury to table linens, sheets and other clothes to hang them out of doors for long time, to become frozen and flap about in the wind. It is also injurious to fold cotton or linen cloth while it is frozen. It strains the fibres and causes the cloth to crack.—New York Tribune.

Profitable Home Handwork.

In connection with women's exchanges, it is a noticeable fact that the best things sell first, be the price high or low. But the workers who do things in the best way are very few and far between. Any woman who can make fine hand-made clothing for infants, and has enterprise enough to get it before the people, will turn away work from her doors. For white cotton embroidery, lettering on table and bed linen, scalloping, etc., there is always and everywhere a market. In large establishments the names of these workers are guarded as treasures, so precious are they. But dolls, the best cannot be made fast enough to satisfy the demand. Inferior ones are a drug on the market. For bronze leather work, for needlebooks and workboxes there is a steady demand, but the corners must be square, the stitching perfect, and the leather without a flaw.

No woman should attempt to sell embroidery who has not practiced for months all the necessary stitches on a sampler. It is wise for any woman who wishes to earn money in this way to experiment until she finds what she can do well, then keep at it until she is known by that one thing, and people instinctively think of her when they need that thing, when her success is assured; but she needs skill and infinite patience.

One woman last Christmas sold dozens of little cretonne bags for spoons and work, the little bags shaped like an English hold-all, but the colors were charmingly dainty, and the stitching and little leather handle perfect. One woman has for years had a constant sale for a court-plaster case and a pen-wiper, always exactly the same material and design, put up in lots of one dozen each, sent to every large city, and the demand has exceeded the supply. Linen cases for travelers, fine hemstitched towels, one kind of a scrap-basket in the daintiest of chintz, if perfect, will be sure to be successful.

Accuracy, taste and business methods are as necessary to a successful seller of pin cushions as to a designer of villas, and any one who can design a pretty, stylish, useful pin cushion, that is new, will make her fortune on the spot—or on the cushion.—Good Housekeeping.

All About Potatoes.

Potatoes, like people, require attention as they grow. For instance, the jacket of a new potato is so thin that scarcely any effort is required to remove it. The skin of an old potato, on the other hand, often presents knots and furrows that must be removed even though the potato itself suffers in consequence. Old potatoes are better if allowed to soak a while in cold water, before boiling; and the addition of a spoonful

of salt to the water in which they are boiled, has a tendency to render them less soggy.

As soon as a fork will enter potatoes easily, remove them from the stove, and if they are old, sprinkle a little salt over them, and take the dish to the door or window and shake it gently. This will render them mealy. I have seen old potatoes so delighted with this treatment that their jackets have fairly burst, showing the white, mealy surface beneath. When this happens, as it always does if the potatoes are not hopelessly poor, hold them in the air long enough to allow the steam to escape from the dish, then remove the skins, set them in a warm place, and cover with a napkin until wanted for use. Potatoes treated in this way, however aged they may be, will seldom disappoint you.

An old-fashioned way of preserving potatoes till spring was to put a quantity of charcoal at the bottom of the bin; this was said to preserve their flavor and to prevent the sprouts from shooting out so early as they otherwise would. A tub of water in the cellar will also keep frost from injuring potatoes and other vegetables. Our grandfathers used always to keep it in the cellar for this purpose. The water in the tub will freeze solid before Jack Frost gets a chance at anything else.

To make mashed potatoes especially attractive, dish it up lightly instead of smoothing it down and grate over it the yolk of a cold hard-boiled egg. It is but the work of a minute, and the yellow and white fluffiness will be much admired!

When potatoes are inclined toward sogginess, try steaming instead of baking or boiling; you will be amazed at the result, for a very poor potato will turn out quite mealy. If the steamer is airtight allow about thirty-five minutes for good-sized potatoes. When boiling, baking or steaming potatoes, plan to have them of uniform size, as the smaller ones will be ruined while waiting for the larger ones to get done.

The objection many have to French-fried potatoes may be obviated if they are drained from the boiling fat they are spread upon clean brown paper. This absorbs all surplus fat in a few minutes, after which they may be served. Try potato soup once in a while when tired of tomato, vegetable and stock soups. Boil about six potatoes, sift while hot through a flour sieve, add one quart of milk, a generous pinch of butter and salt and pepper to taste. Chopped parsley or sliced cold boiled eggs added at the last moment before serving adds to its attractiveness.

A salad fine enough to grace any occasion, and especially desirable, served with cold meat, is potato cream salad. To make it use one pint of hot sifted potato, butter the size of an egg, one-quarter teaspoonful of mustard, half a teaspoonful of salt, a little paprika, and one egg lightly beaten, cream all together; then add either vinegar or lemon juice. The lemon juice is nicer if you have it on hand; the juice of one small one is about right for the correct consistency, but of course much depends upon the potatoes, very mealy ones requiring more liquid to give the salad the right touch. When well beaten it should be light and spongy, but stiff enough to spoon out upon crisp lettuce leaves.—N. Y. Observer.

Domestic Hints.

STUFFED FIGS.
Ingredients: One pound of figs, and two cups of the cream mixture described in the foregoing recipe. Boil the figs in water until they are "piled" figs are the best in shape. Split the figs half way through and fill with the cream. Some persons put a nut meat in each fig with the cream. Almonds are liked for this purpose.

BOILED SWEETBREADS.
Let the sweetbreads stand in cold water one hour, then transfer to a saucepan, add water which has been put one spoon salt, and one tablespoon lemon juice or vinegar. Boil twenty minutes, remove, and plunge in cold water to stiffen. When cold, wipe, and rub salt and pepper on it. Wrap in one sheet of butter paper, and broil ten minutes. Butter and serve.

CHOCOLATE CREAM.
Soak one-half box gelatine in one-fourth a pint of cold water for two hours. Put one pint of milk on the fire, and add one ounce grated chocolate thoroughly dissolved in one tablespoonful boiling water mixed with two tablespoonfuls sugar. Stir into the hot milk the soaked gelatine, and add three eggs with one-fourth cup sugar; add to the gelatine, and stir in the milk. Cook three minutes longer, stirring constantly. On taking from the fire add one teaspoonful of vanilla and a pinch of salt. Strain and turn into molds. Serve with a custard or cream and sugar.

BROWN STEW.
Two pounds of veal from the knuckle or the breast. Cut the meat into bits and roll in flour. Put two tablespoonfuls of chopped veal suet into a pan; when hot, put in the meat and stir constantly for five minutes, and add a half pint of water on one side, add two tablespoonfuls of flour to the mix, and add one pint of water; stir constantly until it boils; add a teaspoonful of salt, a dash of pepper, a slice of onion, a teaspoonful of kitchen bouquet, and a bay leaf. Cover and simmer gently for an hour.—From "Table Talk," Philadelphia.

CHICKEN SUFFLE.
Make one cup of cream sauce and season with parsley, chopped fine, and a pinch of salt. Stir into this one-half cup of chopped chicken and one-half cup of chopped mushrooms. When it is hot add the beaten yolks of two eggs. Cook one minute and put away to cool. When cool stir in the whites of eggs well beaten. Bake twenty minutes in a buttered dish.

MOCK CODFISH BALLS.
Six medium-sized potatoes washed, peeled and boiled for ten minutes in salted water. Drain and grate them while hot and stir in two heaping tablespoonfuls of butter; mix thoroughly. Season with salt, cayenne pepper to taste, and add a teaspoonful of grated onion and a saltspoonful of mace. Beat two egg yolks light, and stir well with the two heaping tablespoonfuls of cracker crumbs. Fry brown in small balls in boiling fat without crowding them in the basket, drain on kitchen paper and serve very hot on a platter; garnish with parsley.

Hints to Housekeepers.

Peppermint drops are quite different from peppermint creams. To make them, boil together for five minutes one cupful of granulated sugar and one-fourth cupful of water. Do not stir this while it cooks. At the end of the five minutes, remove from the fire, and stir rapidly. As soon as it begins to thicken, drop very quickly from a spoon on buttered papers. Rapid action is necessary here, else the mixture will harden while still in the saucepan.

When pepper is used, it should always be pepper, especially in white sauces and soups.

Never salt vegetables until they are nearly cooked; it hardens them.

The water vegetables are boiled in may be utilized in making sauces and soups; the best of the vegetables goes into it.

A strong marking ink, or black dye, which will resist much exposure to the weather, is made as follows: Take gum arabic, ten pounds; logwood liquor (specific gravity 1.37) twenty fluid ounces; bicarbonate of potash 2½ ounces; with water sufficient to dissolve the bicarbonate. Dissolve the gum in one gallon of water, and let the mixture stand for twenty-four hours; then stir in rapidly the bicarbonate solution and add a little nitrate of iron and water. If too thick, thin with lukewarm water.



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THE MODERN STOVE POLISH
Brilliant, Clean, Easily Applied, Absolutely Odorless.



To boil potatoes, select potatoes of uniform size, wash and peel thinly, cover with boiling water and cook half an hour; when nearly done add salt. As soon as done drain from the water and set the saucepan where the potatoes can steam for a few minutes. They should be served immediately, and never allowed to remain in the water a moment after they are cooked. Potatoes are much better steamed with their skins on than boiled, as they then retain all the potatoes. When they are old they should be washed, pared and covered with cold water, and allowed to stand for several hours before either boiling or frying.

To salt almonds, shell and blanch them, spread them on a bright tin plate, add a piece of butter the size of a hickory nut and set them in a hot oven until they are of a golden-brown hue. Remove them from the oven, stir well, dredge thickly with salt and turn them out to cool.

To make a chestnut soufflé, boil a pint of shelled chestnuts in salted water until they are soft. Drain them, remove the brown skins and rub them through a sieve. Cream together half a cupful of sugar and four tablespoonfuls of butter. Add to the mixture the chestnut paste, the beaten yolks of four eggs, half a cupful of bread crumbs, a cupful of milk and the juice and grated rind of a lemon. Beat all together thoroughly. Then fold in the stiffly beaten whites of four eggs. Turn into a buttered mould and bake for fifteen or twenty minutes. Serve with sugar and cream.

By putting lace handkerchiefs in warm water in which are a few drops of ammonia and using Castile soap they are easily washed, and made a beautiful clear white. Then do not iron, but spread the handkerchief out smoothly on marble or glass, gently pulling out or shaping the lace. Just before it is entirely dry fold evenly and smooth and press under the weight of some kind. Treated in this way handkerchiefs will last three times as long.

Hairbrushes may be thoroughly and quickly dried after washing—and that, too, without injuring the bristles—by being briskly brushed with a cloth broom. The broom should be made of advantageously used in drying the hair, the method being to hold up a few strands at a time and fan them with the broom, simultaneously drawing the latter through the strands like a comb. Of course, it is highly important that the broom should be immaculately clean, and that it should not be used vigorously as to break or split the hair.

Fashion Notes.

Smart little capes are offered for spring wear. They are short, extending only to the waist line. At the front there are two long ends, which reach to the edge of the costume and form the finish. These capes are made in every color and material.

As the Lenten season approaches fancy handkerchiefs are giving way to those with "wed" designs. For those who wish just a touch of decoration there are dainty little ones with small designs in the corners.

Combinations are still popular in veillings but the black and white effects are being replaced by lighter hues to harmonize with spring millinery.

With evening gowns, mouseline or Liberty scarfs, two yards long, with narrow hemstitched ends, are worn. When an elaborate finish is desired appliques of velvet or lace are used on the ends.

Ribbon ruffs are among the spring novelties there have been accorded instant popularity. They are made of loops of ribbon in any desired color arranged in a wide puff ruff and finished with long front streamers. Some are decorated with pompons and loops.

Lace gloves are offered in many pretty designs. They are intended to demand for costumes which will exceed the supply.

Parasols now displayed in the stores are decorated at the top with a flower or spray. It may be a carnation, a rose or any appropriate blossom, resting on a large bow of satin. This finish is especially adapted to light colors, and the effect when the parasol is open is pleasing.

New designs in parasol handles are small and made of gold, silver, mother-of-pearl and gun metal. Curved and twisted designs are prominent.

White waists of silk and flannel are among those most in demand for the first spring wear. Silk warp linens, muslins, Swisses and cambrics have been in as great variety of styles and colors as in summer months.

In colored undershirts the colors most worn are dark in tone, black and white being a favorite combination.

Waist skirts have a wide graduated flounce trimmed with two narrow bands with scalloped edges, from which hang full ruffles of this lace.

Short jackets for spring wear are made with loose straight fronts, having revers extending the full length. These are faced with white and trimmed with passementerie or designs outlined in velvet.—N. Y. Tribune.

Notes and Queries.

COST OF OUR NAVY.—Young Citizen: The building of the navy has cost in seven years \$256,838,498, according to data furnished the Senate by Secretary Long. The finished vessels cost \$10,147,163. Unfinished vessels represent \$147,691,335.

HOW OLIVE OIL IS MADE.—C. R. W.: "Oil, like wine, has a different quality and taste from a variety of causes: the kind of olive, the country and soil where grown, the process of making, and, lastly (and unfortunately too often), cottonseed adulteration. The first pure grade called virgin oil, is made from olives picked from the trees and carefully selected. They are put into scrupulously clean, coarse bags and piled one on another in a large stone receptacle with a small outlet in the bottom through which the oil runs. Over this vessel is a press, which is first screwed down by hand and without sufficient strength to break the olive stones. The screw is now pressed down by a windlass worked by an ox. More olives are added from time to time and oil of carefully covered, and are occasionally examined to see if the oil is clear. If not sufficiently so it is poured through fine cheesecloth. This is the only method of clarifying oil. The first press, or virgin oil, is an expensive luxury even in the countries where it is made. The second press is usually considered good enough for the ordinary use for cooking. In this way it is used in Italy, Spain and southern France as we use butter and lard in this country. Castile soap is made from olive oil. The utmost cleanliness has to be observed in the making of olive oil, as it is not only attracts any particles of floating dust or dirt, but retains colors, so smoking is strictly forbidden during the process or in the oil cellar; yet, strange to relate, the odor given out by the pressing is most disagreeable. Cotton seed oil is used to a great extent in adulterating olive oil. It is shipped from this country, mixed in large proportions with the

foreign olive oil, returning to be sold to us as the pure article. Although cottonseed oil is harmless, it has a most disagreeable taste, leaving an after taste in the mouth, like lard. The Italians distinguish oils as grasso and verde, some preferring the former and some the latter. By grasso they mean a heavy oil, and verde, or green, light oil. The French oils are preferred by many as not having so strong an olive taste as the Italian and Spanish ones. California has recently been coming to the fore with olive oils. As yet, however, they are quite as expensive as the imported ones, and are not so much to be depended upon for uniform quality.

DEEP PLACES IN THE SEA.—S. R. W.: Some surprising ocean depths around Porto Rico have been discovered by officers of the despatch boat Dolphin who are making soundings. These seem to confirm the theory held by hydrographers that the Atlantic ocean in the vicinity of Porto Rico and Bermuda is of the greatest known depth, except that in some few places in the Pacific. Reports under date of Jan. 20 received at the Navy Department from the Dolphin state that the record of 4561 fathoms obtained by the Blake in 1882 has been surpassed by one made about seventy miles westward of the position of the greatest previously discovered depth in the North Atlantic. The Dolphin found bottom after 4562 fathoms (over five miles) of wire had been run out. This is said to be the deepest spot so far to be found in the entire Atlantic. As compared with depths ascertained in other parts of the world, these soundings indicate that the next deepest places found in the Atlantic are in the Caribbean Sea south of the Great Cayman, where the ocean's bottom was touched at 3284 fathoms. The deepest known spot in the South Atlantic Ocean is a place of 4000 fathoms, lying eleven miles south of the equator off the Brazilian coast. The most depressed portion of the crust of the earth so far recorded is in the North Pacific Ocean, and was discovered by the U. S. Fish Commission's Albatross, in the year 1855. The deepest place in the Indian Ocean, which measured a depth of 3239 fathoms. This depression is nearly equalled in depth by an area lying a short distance east of the Kermadec Islands in the South Pacific Ocean where the British ship Penguin ran out 3424 fathoms of line in 1855. The deepest place in the Atlantic, according to United States surveys, is where about 2325 fathoms have been found. In the Antarctic regions the greatest soundings taken show 1965 fathoms, and in the Arctic Ocean a depth of 2850 fathoms has been reported.

The World Beautiful.

Lillian Whiting in Boston Budget.
If a man wants to travel on the solid earth he uses as his vehicle a carriage or a train. If he wants to travel on the liquid seas, he changes his vehicle, and takes a ship. If he wants to travel in the air, he changes his vehicle again and uses a balloon. He is the same man throughout, but he is using three different vehicles, according to the kind of matter he wants to travel in. The analogy is rough and inadequate, but it is not misleading. When a man is busy in the physical world, his vehicle is the physical body, and his consciousness works in and through that body. When he passes into the world beyond the physical, in sleep and at death, his vehicle is the desire body, and he may learn to use this consciously, as he uses the physical consciously. He already uses unconsciously every day of his life when he is feeling and desiring, as well as every night of his life. When he goes on into the heavenly world after death, his vehicle is the mental body, and this also he is daily using, when he is thinking, and there would be no thought in the brain were there none in the mental body.—Annie Besant in "Esoteric Christianity."

From one end of the country to the other, it has been telegraphed that Dr. Parkhurst does not believe the soul to be immortal. It is because he believes it to be so infinitely and grandly immortal—in an immortality that concerns the present as well as the future,—that he calls upon men to develop immortal qualities. "We have an indemnity only in the moral and intellectual reality to which we aspire," says Emerson; "that is immortal, and we only through that." And he goes on to say: "My idea of heaven is that there is no melodrama in it at all, that it is wholly real. . . . We live by desire to live; we live by choice, by will, by thought; by virtue, by the vivacity of the law we obey, and obeying share their life as we do by sloth, by disobedience, by losing hold of life, which ebbs out of us."

Emerson has, indeed, said the great word on this question of "Immortality": "You should not say, O my bishop, O my pastor, is there any resurrection? What do you think? Did Dr. Channing believe that we should know each other? Did Wesley? did Butler? did Fenelon?" What questions are these! Go read Milton, Shakespeare, or any truly ideal poet. Read Plato, or any seer of the interior realities. Read St. Augustine, Swedenborg, Immanuel Kant. Let any master simply recite to you the substantial laws of the intellect, and in the presence of the laws themselves you will never ask such primary-school questions.

Is immortality only an intellectual quality, or shall I say, only an energy, there being no passive? He has it, and he alone, who gives life to all names, persons, things, where he comes. No religion, not the wildest mythology, dies for him; no art is lost. He vivifies what he touches. Future state is an illusion for the ever-present state. It is not length of life, but depth of life. It is not duration, but a taking of the soul out of time, as all high action of mind does (when we are living in the sentiments we ask no questions about time). The spiritual world takes place; that which is always the same. But see how the soul is immortal. (Jesus explained nothing, but the influence of him took people out of time, and they felt eternal.) A great integrity makes us immortal; an admiration, a deep love, a strong will, a sense of duty, a great nobility of mind. We say we live years in that hour. It is strange that Jesus is esteemed by mankind the bringer of the doctrine of immortality. He is never once weak or sentimental; he is very abstemious of explanation; he never preaches the personal immortality, whilst Plato and Cicero have both allowed themselves to overstep the stern limits of the spirit, and gratify the people with that picture.

Browning has a line that runs: "The soul, surely, is immortal, where a soul can be discerned." And Stephen Phillips in his great poem, "The Dead Soul," has these arresting, warning lines of the soul: "She felt it die a little every day; Flutter more wildly and more feebly pray." And she felt it: "—Imporing dimly something beautiful," a line that holds the deepest significance as to the sustenance of spiritual life. It implores the beautiful, the ideal, the exalted. That is its food and life.

In the extract quoted above from Mrs. Besant, there is suggested the various bodies—or vehicles—by means of which the soul relates itself to the various successive planes of matter. While in the physical body one is created—by the trend and quality of his thought life—the ethereal body in which, after being made free by death from the present world, he will manifest himself. This body, and the amount of energy that he can exert through it is the measure of his achievement of immortality. So far as he has achieved this higher energy, so far as he is immortal. And the question is

as much one of today as it is of the day of eternity. Am I living now, today, in the life of Immortality? This is the problem that confronts us all? The living life of the spirit? "The days of life, the book, the landscape, the personality which did not stay on the face of the eye or ear, but penetrated inward sense, agitates us and is not gotten. The sole question is how strokes vibrate on this mystic string, many diameters are drawn quite from matter to spirit."

This, then, is the achievement of immortality,—to transmute matter to spirit, to have in the ethereal currents, to have energies that are immortal. The Dewey, Washington.

Gems of Thought.

—You may follow luck to ruin, but not success.—Garfield.

—What do we live for, if it is not to make less difficult for others? —Our grand business undoubtedly is to see what lies dimly at a distance, but to make it clearly at hand.—Carlyle.

—Patience and strength are what we need; the earnest use of what we have now; and some time an earnest discontent until we come to what we ought to be.—Phillips Brooks.

—Every day I see more how necessary it is to be consistent, uncompromising and gently often, perhaps, when a word would not be heard, an act of forbearance or self-denial might be a member of a court of honor.—A. Hare.

—Hunt down and slay your faults. The fault that is faithful in that which is the least is faithful also in that which is greater; and they will hunt down, and slay, and exterminate their little faults, be sure of it, will never willingly consent to greater sin.

—There are souls in the world which have the gift of finding joy everywhere, and of leaving it behind wherever they go. Their influence is an ineffable gladdening of the heart. These bright hearts have a great work to do for God.—F. W. Faber.

—The human soul is God's highest creation, and noblest organ, and his clearest revelation must be through that; and through the noblest part of the human soul, the heart, to the inferior to conscience, to the heart, to faith, sympathy and love.—Thomas Starr King.

—Trust in God, as Moses did, let the way be ever so dark, and it shall come to pass that your life at last shall surpass even your longing. Not, it may be, in the line of that longing, that shall be as it pleases God; but the glory will be as the grace, and the most ancient heavens are not more sure than that.—Robert Collyer.

Brilliant.

The Horse.

Two Noted Stallions.

We present this week in our frontispiece two remarkable stallions. Directum holds the champion trotting record of the world for four-year-olds, 2.03. Online holds the world's champion pacing record of the world for four-year-olds, 2.04. Both have recently been purchased and are now owned by the International Stock Food Company, Minneapolis, Minn.

Directum is a stoutly made, well-proportioned, black stallion, 15.1 hands high. His barrel is round and of good length, and his propelling power is immense for a horse of his inches. He was bred by John Green, Dublin, Cal., and foaled in 1888. His sire is Director (2.17), and his dam is by Dolly, full brother Dexter (2.17), out of Dolly (dam of Onward, 2.23, etc.), by Mambrino Chief. The dam of Directum is Stem Winder (trotting record 2.31). Stem Winder was by Venture, recorded in Bruce's American Stud Book as a thoroughbred. The dam of Stem Winder was by Weeks' St. Lawrence, a descendant of the Canadian trotter St. Lawrence, and her second dam was by thoroughbred Langford, which gives Directum plenty of thoroughbred close up.

A gentleman in California who knew the breeder of Directum well gave the following facts concerning him and his horses to the public several years ago through the San Francisco Chronicle:

"John Green has been the village postmaster at Dublin, Cal., for thirty years. He has also been engaged in the breeding business for that many years. Mr. Green from early youth has had a fondness for both thoroughbred and trotting horses, and has experienced a great deal in crossing the thoroughbred and trotting stock, although he never went into the breeding business on an extensive scale.

"Twenty years ago Mr. Green purchased from Martin Meudenhall of Livermore a race mare known to fame as Queen Sabe. She was by Langford, son of California Belmont, and could run a half in fifty seconds over the half-mile track which were in the majority in those days when Sabe was retired from the turf and was bred to St. Lawrence, a trotting stallion, owned by L. B. Anway, who lived near Hayward's.

"St. Lawrence was quite a good-looking horse, but his breeding could not be called as fashionable. In fact, St. Lawrence was called upon to do plebeian work, such as pulling the plow. At all events the result of the union was a filly, who was given the ordinary name of Kate. She was used as a road mare, and was eventually sold to ex-supervisor Smith of Oakland.

"Before being sold Kate had a foal by the thoroughbred horse Venture, by California Belmont. The newcomer to the Dublin ranch proved to be Stemwinder, the dam of the famous Directum. Stemwinder was a resolute little trotter, and was campaigned for several seasons. She was a coal-black mare, with not a white hair upon her body. She never got a very fast mark, 2.31 being her best record, but in a trial showed her ability to trot in about 2.22 with good handling. Her sire, Venture, though from running stock on both sides, made a record of 2.27 trotting.

"Mr. Green, however, decided to keep Stemwinder for a brood mare. She was first bred to Richard's Elector, and the result was a black filly, Electra (record 2.20). The following year Stemwinder was bred to Director, and this mating gave to the world the wonderful trotting stallion Directum."

Directum (2.03) traces three times through his dam to American Boy, thoroughbred son of imported Sea Gull, and sire of William's Belmont, whose name appears in the pedigree of quite a number of fast trotters raised on the Pacific coast. Sea Gull, by the way, was one of the best bred horses of his day that was imported into this country so far as blood lines go. He was by Woodpecker, out of Middlesex, by Snap, son of Snip, by the famous Flying Childers, and Middlesex was out of Miss Cleveland, by Regulus, son of the Godolphin Arabian.

Woodpecker was by Herod, one of the most famous sires of his day, and out of Miss Ramsden, by Old Cad, son of the Godolphin Arabian. Miss Ramsden's dam was by Bay Arabian; second dam by Bay Bolton, and third dam by Darley Arabian.

Some Eastern breeders may not be familiar with the Williamson's Belmont strain. This cross is valued highly upon the Pacific Coast. L. H. interesting work on "Training the Trotting Horse," the conscientious author, Charles Marvin, as good authority as can be produced, speaks of this thoroughbred family as follows:

The Belmonts were in some more like trotting than race horses, and were bred to produce trotters. Williamson's Belmont, the founder of the family, was a thoroughbred son of American Boy. He was brought to California in 1853 and died in 1865. He left a great family, both as race horses and general road horses. This is a favorite strain in California, and a trotting pedigree can have no better foundation to rest on than Belmont blood.

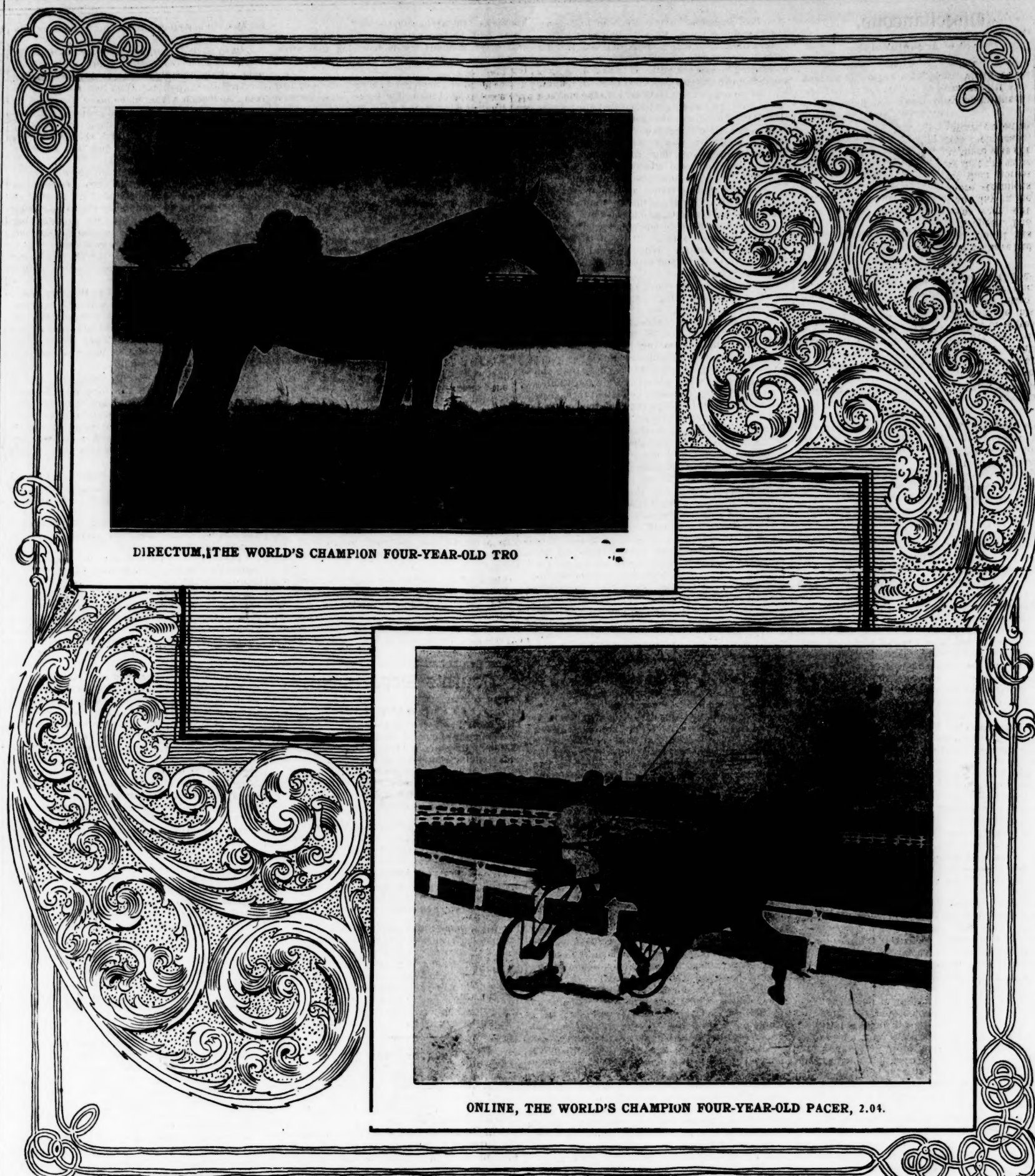
The above was written long before either Hulda (2.08), whose second dam was by Williamson's Belmont, or Directum (2.03) were ever started in a race. Hulda was the first of the get of her noted sire, Guy Wilkes (2.13), to take a record below 2.10.

Directum was brought East in 1892, when a three-year-old, and campaigned by Monroe Salisbury. He did not show phenomenal speed at first. In fact, he had been in training some time, if accounts are correct, before he trotted a quarter in forty seconds. When worked in company, however, his racing inheritance was soon manifested, and it was not many weeks after he trotted his first quarter in forty seconds that he trotted a mile in company a fraction less than 2.19.

Directum's first start was at Grand Rapids, Mich., Aug. 11, 1892, and he won the race in straight heats, time 2.28, 2.23, 2.27. He wound up the season at Nashville, Tenn., Oct. 18, by winning a race in 2.15, 2.12, 2.13. He was taken to California that fall and brought East again in 1893. He started twelve times as a four-year-old and beat every horse that he met. He reduced the trotting stallion record three times that season, first to 2.07 at Fleetwood Park, Sept. 4, again to 2.05 at Chicago, Ill., Sept. 15, and finally to 2.03 in a race at Nashville, Tenn. Oct. 18, where he beat Hulda Wilkes and Hamlin's Nightingale in straight heats, time 2.13, 2.14, 2.05. He was driven to these records by trainer John Kelley. He was first trained by George Starr, who drove him in most of his races as a three-year-old.

In October, 1898, Directum was bought by the late William E. Spier and placed at the head of the stud at his Suburban Stock Farm, Glens Falls, N. Y. Mr. Spier informed us by letter of his purchase, and stated that he paid \$20,000 for the horse. He remained at Suburban Farm until sent to the Fasig-Tipton sale, where he was bought by the International Stock Food Company mentioned above. He made his first regular season in the stud at Lexington, Ky., in 1896, and probably got but few foals previous to that time.

Directum has already proved that he possesses the ability to transmit speed, courage and endurance of a high order. This is not surprising, for Directum was not only the fastest trotting stallion that had ever been seen in his day, but was one of the gamiest that ever pulled a sulky. The following of his get have already taken records in standard time, viz., Consuela S. (2.13), Emma



DIRECTUM, THE WORLD'S CHAMPION FOUR-YEAR-OLD TROT

ONLINE, THE WORLD'S CHAMPION FOUR-YEAR-OLD PACER, 2.04.

Winter (3) (2.14), Directum Boy (2.17), Mondragon (2.19), Jummye (2.20), Janey S. (2.21), Little Fred (2.21), Whiting (2.25), Immaculate (2.28) and Flora Directum (2.29). Five of these entered the list last season.

After he was taken to Suburban Farm his opportunities were better than ever before, but these foals are too young to be campaigned. They will doubtless add greatly to his reputation as a sire within four or five years at the farthest, and some of them long before that. The young Directums brought good prices at the Fasig Tipton sale. The International Stock Food Company bought a few, so that those who visit their farm can see a sample of Directum's get.

Online (4) (2.04), recently bought by the International Stock Food Company, is a fit stable companion for Directum (4) (2.03), as he holds the world's champion record for four-year-old pacers. He is a bay horse, not far from 15.3 hands high, and our readers can judge for themselves from the likeness whether or not he is a horse of good conformation. He is a standard and registered trotter and was bred by E. D. Gould of Fullerton, Neb., and foaled May 5, 1890. His sire is Shadeland Onward (trotting record 2.18). Shadeland Onward was by George Wilkes and Old Dolly's noted son Onward (2.24). The dam of Shadeland Onward was the great brood mare Nettie Time (the dam of Temple Bar, 2.17, and four others in the list). Nettie Time was got by Mambrino Time, a highly bred son of Mambrino Patche 38, and her dam was Cap, by War's Flying Cloud, a son of Vermont Black Hawk 5.

The dam of Online (4) (2.04) is the great brood mare Angeline, and she is also the dam of Onontia (2.07), Analine (2.17) and Harry W. (2.29). Angeline was got by Chester Chief, a son of Rysdyk's Hambletonian, and her dam was sired by the Mapes Horse, another son of Rysdyk's Hambletonian. It will be seen by this that Online is strongly inbred to this peerless trotting progenitor. Shadeland Onward, Angeline and Onontia were bought by Mr. Gould in the spring of 1889 from Powell Brothers, Shadeland, Pa. Onontia was then but a few days old, and Mr. Gould gave orders to have Angeline mated with Shadeland Onward again, which was done, Online being the result.

Online was started several times as a two-year-old, easily beat every colt that started against him, took a race record of 2.13, and at Lyons, Neb., Oct. 14 that season, took a record of 2.11 against time. He was not started in his three-year-old form, but as a four-year-old was started fourteen times.

It will not be a bit surprising, if after all, the directors of Worcester Driving Park Company, who have already claimed dates for their summer race meetings, decided to call a meeting of the New England half-mile track secretaries, and assume the initiative in the forming of a half-mile schedule. Since the Driving Park Company went ahead and claimed its own dates, much pressure on the part of other smaller tracks in this section has been brought upon Worcester directors. The Worcester Company bears no ill feeling against any of the tracks with which that at Worcester was identified last year. A season ago, it will be remembered, the Worcester directors had no little difficulty in getting the dates it desired, and at one time the date difficulty threatened to smash the circuit.

This season Worcester track has its dates all secure, and is perfectly willing to lend all assistance that lies in its power to crystallize a circuit, with either three or four other tracks, about the Worcester dates. This should not be a hard plan to effect, as the local driving park company has

claimed none of the holiday fixtures. "The Roadman" spent a very pleasant afternoon one day last week at the country home of Harry W. Smith at North Grafton, where Mr. Smith's estate, with the three that adjoin, one of which is the Edgewood Farm of George B. Innes, comprise a total of over three thousand acres. Mr. Smith, although he has never been prominently identified with trotting, is one of the best-known horsemen in Worcester, while the ranks of the steeplechase owners, with which Mr. Smith classes himself, none is better known.

At his North Grafton farm this winter Mr. Smith is wintering eight head of horses, and his stable will make its first appearance of the season at the Myopia Club meeting in Brookline next June. Eminent success both in the show ring and upon the steeplechase course, Mr. Smith has ideas of his own in the management and wintering of his horses, just as he has in their development for the ring and the race course. When his horses have no immediate engagements ahead, Mr. Smith leaves them to nature as much as possible, and aside from the daily canter, little attention is given them. Bandages and washes, rubrags and brushes even are unknown to his horses in winter time. They stand in large, roomy box stalls, with moss rather than straw for bedding; and through the middle of the day the barn is always open. Mr. Smith prides himself that he has yet to lose his first horse through lung trouble.

Standing in the stalls of honor, nearest the entrance, are The Cad and Sackett, two steeplechase performers of national reputations, for a year ago last fall Mr. Smith won the championship of the steeplechase course, and they took place. An afternoon of interesting sport with three classes on the bill was promised, but the eighteen inches of snow Monday buried the course, and the second-edition storm of Friday clinched matters completely, so that clearing the ice and pulling off the programme was entirely out of the question. With the winter now so far advanced, and the sleighing so excellent, there is very little chance that the men who have fostered ice-racing will undertake to carry out the programme.

This week Saturday morning comes the special meeting of the Worcester Agricultural Society, called for the purpose of discussing the advisability of holding a fair this fall and of the expenditure of money for cattle sheds or horse stalls. The committee's report in favor of a fair, with a \$2000 premium list has met with adverse criticism from some, and there are not a few who believe that if the society does not feel able to offer a premium schedule equal in size to that of other societies in central Massachusetts, the scheme for a fair should be given up altogether. The claim is made that a small fair entails almost as much clerical work and arranging as a larger exhibition. As to the building of cattle-sheds and horse-stalls, references to which were made in this letter a week ago, it is likely that the society will vote Saturday in favor of the construction of both, although, in case the fair scheme meets with determined opposition, the cattle-sheds may be delayed a year, as without an exhibition there would really be no demand for the sheds.

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claimed none of the holiday fixtures. "The Roadman" spent a very pleasant afternoon one day last week at the country home of Harry W. Smith at North Grafton, where Mr. Smith's estate, with the three that adjoin, one of which is the Edgewood Farm of George B. Innes, comprise a total of over three thousand acres. Mr. Smith, although he has never been prominently identified with trotting, is one of the best-known horsemen in Worcester, while the ranks of the steeplechase owners, with which Mr. Smith classes himself, none is better known.

At his North Grafton farm this winter Mr. Smith is wintering eight head of horses, and his stable will make its first appearance of the season at the Myopia Club meeting in Brookline next June. Eminent success both in the show ring and upon the steeplechase course, Mr. Smith has ideas of his own in the management and wintering of his horses, just as he has in their development for the ring and the race course. When his horses have no immediate engagements ahead, Mr. Smith leaves them to nature as much as possible, and aside from the daily canter, little attention is given them. Bandages and washes, rubrags and brushes even are unknown to his horses in winter time. They stand in large, roomy box stalls, with moss rather than straw for bedding; and through the middle of the day the barn is always open. Mr. Smith prides himself that he has yet to lose his first horse through lung trouble.

Standing in the stalls of honor, nearest the entrance, are The Cad and Sackett, two steeplechase performers of national reputations, for a year ago last fall Mr. Smith won the championship of the steeplechase course, and they took place. An afternoon of interesting sport with three classes on the bill was promised, but the eighteen inches of snow Monday buried the course, and the second-edition storm of Friday clinched matters completely, so that clearing the ice and pulling off the programme was entirely out of the question. With the winter now so far advanced, and the sleighing so excellent, there is very little chance that the men who have fostered ice-racing will undertake to carry out the programme.

This week Saturday morning comes the special meeting of the Worcester Agricultural Society, called for the purpose of discussing the advisability of holding a fair this fall and of the expenditure of money for cattle sheds or horse stalls. The committee's report in favor of a fair, with a \$2000 premium list has met with adverse criticism from some, and there are not a few who believe that if the society does not feel able to offer a premium schedule equal in size to that of other societies in central Massachusetts, the scheme for a fair should be given up altogether. The claim is made that a small fair entails almost as much clerical work and arranging as a larger exhibition. As to the building of cattle-sheds and horse-stalls, references to which were made in this letter a week ago, it is likely that the society will vote Saturday in favor of the construction of both, although, in case the fair scheme meets with determined opposition, the cattle-sheds may be delayed a year, as without an exhibition there would really be no demand for the sheds.

It will not be a bit surprising, if after all, the directors of Worcester Driving Park Company, who have already claimed dates for their summer race meetings, decided to call a meeting of the New England half-mile track secretaries, and assume the initiative in the forming of a half-mile schedule. Since the Driving Park Company went ahead and claimed its own dates, much pressure on the part of other smaller tracks in this section has been brought upon Worcester directors. The Worcester Company bears no ill feeling against any of the tracks with which that at Worcester was identified last year. A season ago, it will be remembered, the Worcester directors had no little difficulty in getting the dates it desired, and at one time the date difficulty threatened to smash the circuit.

There is good sleighing in Worcester now, and in about another day the avenue snowpath ought to be in pretty good condition. The advent of sleighing has been eagerly awaited by horsemen, principally because of the interest taken in R. C. Taylor's new purchase, Who Is It (2.10). Opinions differ as to whether in Who Is It Mr. Taylor has secured a worthy successor to old Abbie V. (2.10), but a week of good going upon the snowpath will come pretty nearly telling the story.

Worcester, Mass., Feb. 23.

Major J. F. Calloway has fifteen head of trotters in training at the Waltham track, Louisville, Ky.

Gen. William J. Palmer of Colorado Springs, who recently gave to that city a large tract of land for park purposes, stipulated that "all horseless carriages shall be improved so that they are as noiseless and as odorous as horse-drawn vehicles, they shall not be permitted to enter said park." The general showed excellent judgment. Men who own valuable horses should have some place where they can exercise them with safety, both to the animals and occupants of carriages.

Jerome O'Neil is wintering twenty head of horses at his farm at Lexington, and is jogging about a dozen every day. All the horses are in excellent condition, and he expects Royal R. Sheldon (2.04) to give a good account of himself this season as he has in seasons past. Chetris (2.04) was a good winner for Jerome last year. Most of his racing was over half-mile tracks, but he won \$1750 clear of all expenses, and he will be campaigned again this year after a season in the stud.

The annual meeting of the Gentlemen's Driving Club of Norwich, Ct., was held at the Wauregan Hotel on the 20th inst. At the same time a banquet was held, and the financial secretary, W. H. Frothero, was presented with a handsome loving cup. The officers elected for the ensuing year were: President, A. D. Lathrop; Vice-president, W. K. Fingley; Corresponding Secretary, T. M. Yerrington; Financial Secretary, W. H. Frothero. The club numbers about one hundred members and is in a very flourishing condition.

The re-laying of the track at Readville is nearly completed, and only a few days more work is necessary. The Breeders Association has spent several thousand dollars on this work, and it is expected that they will have the best track in the country when the Grand Circuit horses turn for the word. The work of re-laying has been thoroughly done. It was recognized from the first that no half measures would do, and the better policy would be to do it right now and obviate the necessity of any patching up hereafter.

Mr. Forbes says that he will not be able to serve on the Board of Review. He says he cannot take the time from his business to devote to it, and that had he known that it was intended to bring his name before the Congress as a candidate for a place on Board he should not have allowed it to be used. It will be a matter of regret to all horsemen that Mr. Forbes cannot see his way clear to remain a member of the Board. His election was one of the most popular and cordially approved things done at the last Congress.

Plenty of snow fell last week, and we have had several days sleighing about Boston, but it has not been such as was conducive to speed. The weather was such that the snow was very soft and the footing was hardly decent any day on the Beacon boulevard. Some of the more strenuous of the road drivers, however, cut their horses loose on Monday, but from the way that the snow and water flew, it would seem that there was not much pleasure in giving the horses their heads. Very few of the real crackerjacks were called on for their speed.

Delays are dangerous, not only in business, but in your stable. You make a mistake if you do not use German Peat Moss. Write C. B. Barrett, Importer, Boston, for circular.

WANTED.

A young stallion, bay or brown, a trotter, sound, pure gaited, bred in Wilkes-Electioneer lines, with a line of producing dams, and by a producing sire.

Wanted for stud purposes to go abroad. Describe horse, state where he can be seen, give pedigree, and name lowest cash price.

W. R. ALLEN,
Pittsfield, Mass.

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None genuine unless stamped G. S. Ellis & Son, and date of patent. For sale by all dealers Nov. 6, 1898. or shipped direct.

Two Fast Pacers for Sale.

FANNY B. Km. foaled in 1896, record in winning race, trial 2:17 in race, quarter in 33 seconds as four year old.
LILLIAN B. Km. foaled 1896, record in winning race, trial 2:17 in race, quarter in 33 seconds. Both these mares are sound, and half sisters, level headed and game, and with good handling this year will take records of 2:10 or better on half-mile track. The prevailing distemper knocked them both out last year. Good reason for selling. For information write W. L. TAFT, Northbridge Centre, Mass.

SPEED TO BURN!

Large bay pacing gelding, coming eight. Record 2:14 half-mile track. Worked in 2:17, quarter in 33 and eighths in 11 seconds. A great weight puller. The footing doesn't have to be made to order for him; he is always level. Sound, kind, clever, boppies, and can outbrush most any horse to dizzy sleigh or cart. He'll do to race. Will show record today. For particulars address "M., P. O. Box 2684, Boston, Mass.

SONS OF Baron Wilkes

have sired the Futurity winners for several years. I have two choice, young stallions ready for service sired by BARON WILKES and FAIRBANK PATERSON and M. L. BRUNO KING mares. They are good size, sound, handsome and fast; bred right to size race winners. Also fast, sound, green pointed stallion that has been miles in 2:15, quarters in 30 seconds. Can show as good racing prospects as you can find in Kentucky.

A. C. HAWKINS,
Lock Box 49, Lancaster, Mass.

WANTED.

A four-year-old stallion, bay or brown, black points, sound, well bred, a trotter. One that either took a record of about 2.15 or showed that fast in trials as a three-year-old.

Describe horse, state where he can be seen, give pedigree, and name lowest cash price. Wanted to ship abroad, and must be first class.

W. R. ALLEN,
Pittsfield, Mass.

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THE BAROMETER OF
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1901 1902

2 SALES IN 10 WEEKS 1500 HORSES	BEST RECORD FOR THE NUMBER
920 HORSES OLD GLORY 1901.	\$721,400
YRLG TROTTER.	\$481
132 HEAD	\$541
3 STALLIONS.	\$10,300
6 STALLIONS.	\$13,635
2 GELDINGS.	\$12,600
OLD GLORY 1901.	\$9,116
TOP PRICE MIDWINTER 1902.	\$9,830
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	\$15,700



FOR SALE.

One of the best pairs of Coach horses in New England. JOHN H. Bay gelding, foaled in 1896, by Starman No. 1528, first dam by Erection, second dam by John H. Bay gelding, foaled 1884, sire of John H. Bay, first dam Fannie W. This is a handsome pair, sound, level headed, and weigh 2000 lbs. each. Road twelve miles in an hour, and trot a half-mile in drive like one horse; city broken, long, low, kind, fearless of all objects, perfect in every respect. One looking for a fine team ought to inspect this one. Also one of French's best traps, used six or eight times. Going away, and want to dispose of them. A. E. WELLS, 9 Abner Vite Street, Station B, Worcester, Mass.